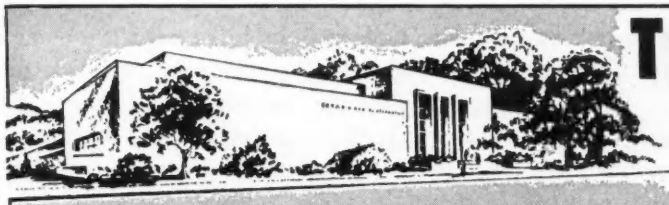

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UNIFIED APPROACH TO GOOD WILL

When the county medical society presidents and secretaries held their third annual meeting in Austin January 23 and sat in on the Executive Council meeting the next day, they heard reviewed the function of each council and committee of the Texas Medical Association. Knowing the organization not only means a better operating society but is the first step in the direction of a strong internal public relations program. And as Dr. T. C. Terrell, Fort Worth, wrote in the February, 1953, President's Page, ". . . a better understanding of our own organization and its facilities will help in developing more fruitful external public relations, too. Without being able to tell other people about the Association and its services and without making use of those services in helping to build good will, the problem of creating pleasant relations with the public is made harder." To work together as a closely knit group, county society members must be informed as to policies and programs, must attend and take an active interest in their local meetings, and must avoid professional jealousy and unwarranted criticism of fellow physicians.

To help prepare future doctors to take their place alongside older members of the medical profession, Medical Students' Day programs have been held this school year at the three medical teaching institutions in Texas. The programs, sponsored jointly by the Association and the Dallas, Harris, and Galveston Counties Medical Societies and presenting indoctrination talks by some of the key men in the state's medical organizations, were so successful in acquainting medical students with the practical features of their future medical practice that they are to be continued annually.

Regardless of how well each member of an organization, young or old, knows its program and joins in it, the public will not be favorably impressed unless the program is inherently good. The Association's 1954 program, while emphasizing internal relations, also makes note of the four points stressed last year in an effort to present a positive public relations program of value to patients and public.

Mediation committees have been and are being established by most of the county medical

societies as one of the medical profession's answers to public criticism alleging the high cost of medical care.

Another point provides for around-the-clock emergency medical service, recommending the establishment of county society telephone panels guaranteeing the provision of a physician in an emergency at any hour.

A special effort is being made to learn of the areas of physician shortage and to assist in the remedy of such shortages.

The fourth point is designed to make doctors' offices more efficient, friendlier, and incidentally more profitable by properly training medical secretaries and clerical assistants. The Association's Committee on Public Relations has prepared and released several thousand kits outlining proper secretary training and is continuing to offer help in this field to individual doctors and county societies.

A well planned and executed joint program is of the utmost importance, but organization alone cannot do the job. Public relations is the personal responsibility of individual physicians, and not until each physician does his share can maximum success be obtained. A physician's actions reflect on the entire profession, and his deeds add to or detract from the prestige shared by medical men the world over.

PART OF THE ANSWER

One of the chief cries of opponents of the medical profession and apologies of some of its friends has been "doctor shortage." Knowing that the only way to answer adequately the challenge posed by this phrase, the Texas Medical Association some months ago determined to find out exactly what situation exists in Texas and to do something to correct maladjustments if sizable gaps in physician care exist. At least a partial answer now is available.

The whole question was turned over to a special Committee on Doctor Distribution, composed of persons already familiar with the problems of rural health, medical economics, and public relations. With one statewide survey complete and another finished in one district and ready for expansion into other areas, the committee has at hand a reservoir of important facts which had been guessed at or unknown previously. For example, the doctors of Texas, more than 6,000 of whom answered a questionnaire, think that additional general practitioners are needed, especially in communities of less than 5,000 population and in northwest Texas. In Texas as a whole the average is 1 physician per 813 population as compared with 1 physician per 730 population nationwide. Calls any hour of the day will be taken by 87 per cent of all general practitioners and by 62 per cent of all specialists. In District 7, the pilot area for a survey of opinion among community lay leaders, not a single community of more than 800 population complained of insufficient physicians. These facts and others already obtained or to be obtained by the Committee on Doctor Distribution will be invaluable in answering legitimate claims for help and misguided complaints from whatever source.

Since World War II, the Texas Medical Association has made a concerted effort to assist communities in need of physicians to obtain them. The Physicians Placement Service, operated in the central offices under the direction of the Council on Medical Economics, will continue to work closely with the Committee on Doctor Distribution to assist areas which should have additional physicians. This Placement Service recently has received recognition nationally for the service it is performing, not only for communities searching for doctors but for doctors attempting to establish practice in new locations.

Doctor distribution and health care as it affects the rural population, the spot at which most irritation occurs because of "doctor shortage," will be considered at length at the national Rural Health Conference to be spon-

sored by the American Medical Association in Dallas in March. Farmers, home demonstration agents, visiting nurses, and a wide variety of persons interested directly and indirectly in the promotion of better health will be present for the session in Dallas. With Texas the host state, more Texans than usual should attend this conference, and the exchange of information and opinion there should help in establishing a better understanding of the part which any community must play to assure for itself adequate health care and also of the aid which the medical profession is ready to provide. Physicians in attendance undoubtedly will get new insight into the life of rural people and will be more capable of accepting their role in the solution of mutual problems.

Possession of facts about doctor distribution, an aggressive program to place physicians where they are most needed, and establishment of liaison with lay leaders sharing a concern for better health give promise of creating not only a finer medical service but also a happier climate of public opinion.

CEREBRAL PALSY DATA SOUGHT

Help in obtaining authoritative information about the number of cerebral palsied patients in Texas and what facilities are available and needed for their treatment and training will be asked of physicians of the state within the next few weeks.

A voluntary committee of William G. Wolfe, Ph. D., director of special education in the Department of Educational Psychology at the University of Texas, Austin, chairman; Dr. Lewis M. Helfer, San Antonio; Dr. Ralph Hanna, Austin; and Leon Reed, graduate student in special education at the University of Texas, Austin, serving without pay, is administering a $10,000 grant from United Cerebral Palsy of Texas. A one year survey now beginning will be the first statewide study to ascertain just how big the cerebral palsy problem is and how it best can be met.

Doctors will be sent a simple form asking for the name, address, and birthdate of any cerebral palsy patients they have had. When this information is returned, the doctors will not be asked to spend more time on the survey; instead, parents, hospitals, and clinics will be asked to supply additional details. All information will be used for statistical purposes; individual case records will be kept confidential. The results of the survey will be generally available.

Cooperation with this survey may mean the compilation of data invaluable in the care of cerebral palsied patients.

Age in Medical School

As a group, older students are more likely to drop out without finishing medical school than are their younger companions, according to a study of the relationship between the ages at time of admission to Southwestern Medical School, Dallas, of students who were graduated and those who were not. A report of the study, conducted by Dr. Carmen Miller of the Department of Psychiatry at Southwestern and Dr. Don P. Morris, formerly of Southwestern and now professor of psychiatry and mental health at the University of Illinois, appeared in the January issue of the *Journal of Medical Education.*

Results show that a greater percentage of those who withdrew were in an older age group, suggesting that special care should be exercised by medical schools when considering the admission of older students.

Suggested explanations of the relationship between chronological age and success in medical school include the following: older students may not be as healthy physically; they may be dissatisfied more frequently with the work to a degree to cause illness; more are married and have financial burdens; they have more social obligations, making it difficult to keep up with school work; more of them were indecisive about entering medical school and lack real motivation; many have tried other fields and cannot adjust psychologically elsewhere or in medical school; many wish to take advantage of the GI bill and are not sufficiently motivated; certain intellectual abilities decline with age and disuse; and many older students have been away from the school situation for a period of time.

World Directory of Medical Schools

The first world directory of medical schools, listing more than 500 medical teaching institutions and giving essential data about each, has been issued by the World Health Organization. Of the 84 countries and territories listed as having medical schools, the United States has the most, 79. Next in order come Russia with 61, Japan 46, India 34, United Kingdom 27, France 25, and Italy 21.

ORIGINAL ARTICLES

GASTRIC CANCER
A Problem of the Internist

MANDRED W. COMFORT, M.D., Rochester, Minnesota

GASTRIC cancer is one of the challenging problems facing the medical profession. It is challenging because its management is far from successful. It is challenging because morbidity and mortality are staggering. Gastric cancer alone accounts for almost 15 per cent of the more than 200,000 deaths estimated to be the annual total of all deaths from cancer.[29] The statement that 1 out of every 200 patients who register at the Mayo Clinic has a gastric cancer always has brought home to me, as no other statistics have, the size and importance of the gastric cancer problem. This statement will undoubtedly interest others because the incidence of gastric cancer probably is not greatly different in other private practices. Such a problem invites continuing and critical review of the methods employed in its management.

Stimulating progress, nevertheless, has been made in the management of gastric cancer. Forty years ago it was the picture of advanced, inoperable gastric cancer with which the medical profession was familiar. A study by Berkson, Walters, Gray, and Priestley of mortality and survival among patients with gastric cancer seen at the Mayo Clinic between 1907 and 1916 disclosed that 60 per cent of the patients with this disease were subjected to laparotomy and only 22 per cent were found to have resectable lesions; 19 per cent survived resection, 7 per cent surviving for three years and 5 per cent for five years or more. Today the outlook has changed. Many more early lesions are being seen, as a similar study[5] of patients encountered between 1940 and 1949 disclosed. Of patients seen in these years, 80 per cent were subjected to laparotomy and 44 per cent to gastric resection; 40 per cent survived resection, 18 per cent surviving for three years and 14 per cent for five or more years. The statistical procedure whereby it is possible to know on January 1, 1951, the five-year survival rate among a group of patients, some of whom were seen as late as the end of 1949, is explained in a paper by Berkson and Gage.

Regarding the material from another statistical point of view gives a better idea of the improvement over the years than can be derived directly from the quantities given in the foregoing paragraph. In the earlier of the periods designated in the preceding paragraph, the operability rate was 60 per 100 patients on whom the diagnosis was made, and in the later of the two periods, it was 80 per 100, an improvement of 33 per cent. For the same periods other statistics were encouraging: resectability rate, 37 per 100 patients operated on as against 55 (improvement 48 per cent); hospital mortality rate, 16 per 100 patients subjected to operation as against 8* (improvement 100 per cent); three-year survival rate, 39 per 100 patients who underwent resection as against 43 (improvement 10 per cent); five-year survival rate, 29 per 100 patients with resection as against 35 (improvement 20 per cent).

To improved surgical technique much of these more favorable results may be attributed, but earlier diagnosis, improved preoperative and postoperative care, better anesthesia, the sulfonamide drugs, the antibiotics, and perhaps other factors have contributed. Gastric cancer clearly may be classified as a curable disease.

These data present the good side of the outlook today. To present the other side, it must be said that of the later group of patients, 20 per cent had hopelessly inoperable lesions on admission; that although 80 per cent underwent exploratory surgery, 36 per cent did not have resectable lesions; and that of the 44 per cent who had resectable lesions, 68 per cent died within five years of operation. Moreover, it is important to note that survival rates did not increase in proportion to resectability rates. Unquestionably there is room for improvement. Wherein does this lie? Many approaches have been suggested. These may be discussed under some such headings as prevention, early diagnosis, new and improved methods of diagnosis, and new and more effective methods of therapy.

PREVENTION

Heredity and environment play a role in the genesis of certain human cancers,[18] but the importance of these factors in the etiology of gastric cancer remains to be proved. Families in which gastric cancer apparently occurs with a frequency greater than in the general population occasionally are seen, but such families have not been well documented as have families subject to breast cancer. Carcinogenic agents, both

From the Division of Medicine, Mayo Clinic.
Read before the Section on Internal Medicine, Texas Medical Association, Annual Session, Houston, April 29, 1953.

*Mortality rate, of course, improves when it is reduced.

physical and chemical, have been sought in man's food. Klein and Palmer raised the question of the importance of heat in esophageal and gastric cancer of man, because as pointed out by Lerche, carcinomas of these structures tend to predominate in regions just proximal to points of narrowing as do cicatricial strictures of these organs owing to ingestion of corrosive fluid. Gastritis, presumably a precancerous lesion, has been ascribed to food too hot or too cold, and it has been postulated that carcinogens are produced in the food by overheating of cooking oil and fats. However, experimentalists to date have failed to produce adenocarcinoma of the glandular stomach (the part comparable anatomically with the human stomach) of the rat or mouse by such physical and chemical agents orally administered, even after destruction of the mucous barrier[19] suspected of preventing their action, or for that matter by orally administered carcinogenic hydrocarbons of known potency.[3] Neither clinical nor experimental data at present justify screening of all members of the family in which gastric cancer appears (except the rare but frankly cancer-prone family) or the studied alteration of eating or working habits. A preventive approach to gastric cancer has not been found.

EARLIER DIAGNOSIS

Berkson, Walters, Gray, and Priestley's study of mortality and survival in gastric cancer disclosed that, while only about 1 per cent of patients who were subjected only to explorative or palliative operation lived five years, about 32 per cent of those who underwent resection lived this period of time; and while only about 20 per cent of those whose cancers had undergone metastasis lived five years after resection, about 50 per cent of those who did not have recognizable metastatic growths lived this period of time after resection. These data clearly imply that the earlier the lesion reaches the surgeon the higher the survival rate and that the kernel of the problem of increasing survival rates lies in getting more patients into the hands of the surgeon not only while the growth is resectable but before metastasis occurs. In other words, diagnosis must be made earlier than has been possible in the years gone by.

Early diagnosis of gastric cancer is difficult. It is difficult because early symptoms are mild and readily attributable to allergy, food intolerance, and functional disturbances; because the cancer may be superimposed on long-existing functional or organic dyspepsia; and because cancer may be advanced before symptoms appear. Nevertheless, early diagnosis should be possible more frequently if it has not been delayed by self-medication, erroneous interpretation of symptoms, and inaccurate diagnosis.

Early diagnosis may be accomplished in several ways, and the most important of these is education. The public can be educated to seek the physician for careful evaluation of all dyspepsia soon after onset and for yearly examinations. The physician can be urged to remain alert to the possible significance of dyspepsia or loss of weight, especially in those of cancer age, and to the need for promptly localizing the lesion responsible for dyspepsia. To him the point may be stressed that any gastric lesion may be malignant and that it should be treated nonsurgically for only a short time at most; that cancer of the stomach is not a hopeless situation, as the quoted data so well show; and that early exploration is advisable when there is doubt about the nature of the problem. Chairs of oncology currently being established in medical and dental schools will contribute importantly. They serve to increase the students' awareness of the disease, to present current knowledge of, and improve services to, the cancer patient, and to stimulate interest in cancer research. Cancer detection clinics likewise have an educational function. They serve to educate the public and alert the medical profession as well as to detect the cancerous and precancerous lesion.

Earlier diagnosis also may be achieved by frequent routine examinations for cancer. The more enthusiastic advocates of this method propose screening of the general population as is done for pulmonary tuberculosis and are encouraging the development of x-ray equipment and technique suitable for mass screening. The magnitude of the difficulties involved in, and the present impracticability of, such screening are apparent. The development of an easily performed blood test for cancer, one of great selectivity and reliability, appeals to many as a far more practical means of mass screening. Less enthusiastic advocates of screening methods propose screening only those segments of the population in which gastric cancer is more likely to develop than in the general population. These segments are composed of those with achlorhydria, pernicious anemia, and atrophic gastritis.

The assumption that gastric cancer is more likely to develop in persons with achlorhydria than in those with normal gastric acidity rests on the fact of the development of achlorhydria before gastric cancer in a large number of cases[8] and on the achlorhydric character of the gastric content after cancer develops in roughly 60 per cent of cases. Similarly, the assumption that gastric cancer is more likely to develop in the patient with pernicious anemia than in other persons lies in the recorded evidence that the incidence of gastric cancer and of the adenomatous gastric polyp[12, 25, 30, 33, 34] is greater among patients with pernicious anemia than among that portion of the general population which comes to necropsy. Evidence that the patient with atrophic gastritis, but without

pernicious anemia, is likewise especially liable to development of gastric cancer is less convincing, but the presence of achlorhydria in many cases of gastric cancer, together with frequent occurrence of atrophic gastritis in association with gastric cancer,[17, 41, 44] supports such a belief.

Roentgen-ray examinations of those persons within the cancer age whose gastric contents are achlorhydric, at intervals short enough to detect gastric cancer early, should alter significantly the five-year survival rate. It has been estimated[11] that there are 7 to 9 million or more people past the age of 40 years who have achlorhydria, that the incidence of gastric cancer in this group is eight to ten times greater than in the general population, and that about 50 per cent of gastric cancers should develop in persons of this group. Operation of a program of early detection of gastric cancer such as has been mentioned might be considered successful if the percentage of resectable lesions and the five-year survival rate among patients with resectable lesions were increased by 50 per cent. Attractive as the plan may be, the magnitude of the problem of accurately examining roentgenologically so many people renders it impracticable, at least with present methods of examination. Early diagnosis by screening is an idea sound enough to encourage the individual physician to screen some of his own patients by choosing those with low gastric secretory activity, and especially those with pernicious anemia and atrophic gastritis, for careful periodic observation.

The close relationship of two other conditions to gastric cancer requires critical management by the physician. The first of these is the adenomatous gastric polyp. It not uncommonly occurs in the same stomach with cancer, and as many as 35 per cent of polyps have been found cancerous.[28] In a recent study of 185 cases of pathologically verified adenomatous polyps made by Cromer, Butt, and me, the polyp was benign in 150 cases and malignant in 35 (about 19 per cent). The adenomatous gastric polyp justifiably is considered a precursor of gastric cancer and removal is indicated. The second of the two conditions is the benign appearing gastric ulcer. After long years of sometimes bitter debate the question of malignant degeneration of the benign gastric ulcer remains unsettled. The answer to this question is an important one, but from the practical clinical standpoint it is more important to have answers to two other questions. First, is the ulcerating lesion benign or malignant when first seen? And, second, is cancer likely to develop in stomachs diseased by benign gastric ulcer?

Regarding the first question, it is generally accepted that reliable clinical and roentgenologic criteria for prompt distinction between the small benign and malignant lesion do not exist (the meniscus sign—indicative of malignancy—properly interpreted is an exception to this statement). Even in the best of hands, from 10 to 20 per cent of benign-appearing ulcers have been found malignant on microscopic examination.[1, 14, 16, 24, 27, 40, 43]

As to the second question, certain data presented by Cain, Jordan, Gray, and me at least make us loath to deny that gastric cancer may develop in the stomach diseased from gastric ulcer. In a study of 414 patients whose small gastric ulcers had been medically treated, 226 were alive at the end of five years and had not undergone operation. Of these 226, 11 subsequently were found to have cancer. In 7 of the 11 patients, the diagnosis of cancer was proved by examination of tissue removed surgically or at necropsy. In these 11 cases it was difficult to believe that the gastric lesion was cancerous when first seen five or more years previous to the diagnosis of cancer, and it appeared that the cancer developed either in the ulcer or in the mucosa of the stomach diseased by gastric ulcer and at a rate far higher than that at which cancer develops in the general population (estimated rate 0.1 per cent). Because of such an incidence of gastric cancer among benign-appearing gastric lesions and such an incidence of gastric cancer appearing after years of medical treatment, it is difficult to take a casual attitude toward possible gastric malignancy in the patient with gastric ulcer. Prompt, complete, and permanent healing should be the criterion for continued nonsurgical management. The responsibility assumed by the physician who elects to prolong nonsurgical treatment of a gastric lesion that does not respond promptly when gastric resection is available at a mortality rate as low as 1 to 2 per cent has been emphasized repeatedly.

NEW DIAGNOSTIC METHODS

The mainstay in diagnosis of the intragastric neoplasm is the roentgenologic method. Its effectiveness is great. It will disclose a high percentage of the lesions, even small ones. However, in all frankness it should be said that its effectiveness naturally depends on the skill of the roentgenologist. Moreover, in all fairness in evaluating the method, one should remember that even in the hands of the most skilled persons, only lesions gross enough to be visible to the naked eye or extensive enough to produce recognizable rigidity and deformity of the gastric wall would be expected to cast shadows of diagnostic importance. Again, the roentgenologist not only has difficulty in visualizing a lesion but in distinguishing between the benign and the malignant lesion. It is important that the clinician be aware of the limitations of roentgenologic diagnosis, supplement roentgenologic diagnosis

with keen clinical judgment, and use to the fullest, supplementary methods, including surgical exploration when doubt persists.

Recognition of the limitations of roentgenologic diagnosis has led to search for, and appraisal of, methods more sensitive and more accurate than the roentgenologic method. These are many. Gastroscopic examination, which is of proved value in visualizing small gastric lesions, often fails in those cases in which the roentgenologic method likewise may fail, that is, when the lesion is in the cardiac portion or on the posterior wall of the stomach and when the infiltrative lesion is covered by a normal-appearing mucosa. Cytologic study of gastric washings[6, 39, 42] has not yielded satisfactory results to date, but perhaps variations of the methods now being proposed will make it a valuable aid. The use of papain[35] to dissolve mucus and increase the concentration of cells in the preparation to be examined or the employment of an abrasive balloon to remove the cells from the lesion itself[9, 31] are two more recent variations. Smears of the esophagus and cardia, obtained through the esophagoscope, have yielded valuable information.[2] Measurement of the differences in electropotential between the mucosa of the stomach and the skin is currently under study; it has been stated that the differences in potential in cases of cancer are unlike those in cases of ulcer,[15, 37, 38] but these differences may be attributable to variations in gastric acidity.[32] Rovelstad, Owen, and Magath have contributed to the understanding of the pitfalls of the method. Serologic methods, such as those proposed by Huggins and his co-workers[20-23] and investigated by Ellerbrook and his co-workers, as yet have failed to provide specificity or reliability to warrant their use to detect cancer in the stomach or elsewhere. The potential value of all such blood tests is so great that careful appraisal always is urgent.

New and more accurate methods of diagnosis are desirable but may be important only in proportion to the frequency with which gastric cancer gets into the clinician's hands early in the course of the disease.

NEW TREATMENT

Surgical removal of adenocarcinoma of the stomach is the sole therapeutic method of value in treatment of this disease. The increase in resectability and the decrease in surgical mortality rates are convincing evidences of the improvement taking place in application of this method. Roentgen therapy is of value in treatment of gastric lymphosarcoma. The high percentage of gastric cancers which reach the surgeon after the disease has spread beyond the stomach and a five-year survival rate of only 14 per cent point to the need for methods of therapy applicable to cases in which metastasis has taken place. Their discovery may await more fundamental knowledge of the cause of cancer.

COMMENT AND SUMMARY

A gratifying improvement in the outlook for the patient with gastric cancer has taken place in the past thirty years. It is a curable disease even with methods of therapy now applied. The surgeon has done a superb job and may be counted on for further technical progress. The increasing frequency with which total gastrectomy is being done for gastric cancer presages a further increase in resectability, but it remains to be seen whether increased survival rates will compensate for the large numbers of ensuing nutritional and dumping problems.

The gastric cancer patient, however, has not received full advantage of surgical therapy as now practiced. Slightly less than half of such patients are subjected to gastric resection, and of those who are subjected to it, about two-thirds die within five years. Even though resectable, the growth too often already has spread beyond the stomach into the neighboring nodes or organs. Without resorting to the more extensive surgical procedures, greater resectability and survival rates may be achieved by early and accurate diagnosis and institution of treatment before metastasis has occurred.

Critical appraisal of many of the problems involved in shortening the period between onset of the disease and diagnosis followed by surgical removal, together with the improvement in survival rates, suggests a program that should be attended by accomplishment to a gratifying degree. The program is fourfold:

1. The public will be informed that gastric cancer is a curable disease; that it is curable in proportion to the rapidity with which the patient reaches the surgeon and effective treatment is carried out; that certain symptoms indicative of gastric cancer require him to seek immediate and intelligent advice; and that self-medication may cause fatal delay.

2. The physician will be more alert than ever to the possibility of development of gastric and other cancer in patients entrusted to his care, particularly those with achlorhydria, pernicious anemia, and atrophic gastritis; properly conscious of the limitations of present methods of diagnosis, including roentgenologic diagnosis; fully aware of the potentiality of cancer in every intragastric lesion, even in a benign-appearing ulcer; fully aware of the danger of delay in dealing decisively with such a lesion; and convinced of the advisability of early surgical exploration in doubtful cases.

3. Newer methods of diagnosis and skill in their application will be sought constantly.

4. Support will be given laboratory research into the basic nature of cancer and clinical research into the behavior of cancer, for from these researches will come the needed newer and more accurate methods of diagnosis and therapy.

Further advances in surgical technique probably will increase survival rates as they have in the past, but major dependence should be placed on diagnosis and surgical removal of a larger percentage of gastric cancers earlier in the course of the disease than is now done. In the successful operation of the aforementioned program, which is pointed toward early diagnosis, the physician—general practitioner and internist—will play a major role. It is he who will be most effective in education of the public, who will suspect and diagnose gastric cancer early in its course, who will direct the patient promptly to the surgeon, and who will secure for the patient the full benefits of today's surgical skill.

REFERENCES

A complete bibliographic list to which the reference numbers in the text refer will be included in the reprints.

ABSTRACT OF DISCUSSION

DR. MILFORD O. ROUSE, Dallas: We are indebted to Dr. Comfort for forcefully emphasizing the part played by the diagnostician—general practitioner, internist, or other physician—in improving the admittedly low salvage rate in patients with gastric cancer. At times it would seem almost that the public is more alert than is the medical profession. As Heller has said, we need to "evolve a sensibly cancer-conscious public mind—not a dangerously cancerophobic public." The great need is to find and to utilize effectively means to shorten the time between the onset of the condition, its diagnosis, and the initiation of treatment.

The tragedy of stomach cancer has three important components:

The first is the insidious, nonspecific onset of symptoms. In many instances the first real signs are of advanced disease. Unfortunately there are really no "early signs" of stomach cancer. Observations in cases coming to a second laparotomy where cancer recurs after a gastric resection would indicate a rather slow growth of gastric neoplasm in many instances. In most reports, six months is given as the average time from the probable start of a stomach cancer to the appearance of acknowledged symptoms. In an interesting paper by Cooper, "Patients, Physicians, and Gastric Cancer," in *The Journal of the American Medical Association* of October 18, 1952 (listed in Dr. Comfort's bibliography), a study at the New York Hospital brings out several unique observations on the "time schedule" of stomach carcinoma.

One must admit, regretfully, that at the present time there is woefully little the practicing physician can do to reduce this component. With optimism we may look forward to the future when research will produce a specific or universal diagnostic test which will mean to the cancer problem what the Wassermann test meant to syphilis and mass chest roentgen-ray surveys to pulmonary tuberculosis.

The second component is procrastination by too busy or indifferent patients. The active business man or the busy housewife tries home remedies first, then those suggested by well-meaning friends or the convenient corner druggist, until eventually increasing pain, vomiting, or gastric hemorrhage galvanizes such a person into tardily seeking a physician.

There are definite things to be done in reducing this component, mainly in sensible education of the public. The American Cancer Society has led in this endeavor for years. Practicing physicians should consider it part of their civic responsibility to speak on cancer to service clubs, parent-teacher associations, and women's groups and to make every use possible of access to radio and television programs. The women of the medical auxiliary cooperate splendidly. Modern health education through the health museum technique is worthy of widespread use. Physicians should beam all such education to the end of placing in the mind of the public the fact that cancer is curable when detected and treated sufficiently early. Such education can do much to remove the cancerphobia that makes miserable the lives of countless thousands who have heard just enough about cancer to make them thoroughly uneasy.

The third component of the tragedy of gastric cancer is the doctors' lack of suspicion and delay in establishing a diagnosis. Every patient with a digestive complaint has a right to expect that the physician whom he consults has the training, the intelligence, and a sufficiently acute suspicion of cancer to work out correctly the basis of trouble. We physicians have to be careful lest our commendable desire to bring all hope possible to fearful patients may make us optimists apparently hesitant to consider the possibility of such a grave condition as stomach cancer. Perhaps the press of too heavy a patient-load may make a physician slow to evaluate properly symptoms which should call for an immediate, intensive diagnostic study, which should be repeated if the findings are negative and the symptoms continue. The minimum responsibility of a doctor is to explain and recommend to his patient proper diagnostic procedures, especially roentgen-ray study, stool examination, and gastric analysis with gastroscopy where indicated. Failure to urge such a comprehensive study makes a physician *particeps criminis* if later a far-advanced stomach cancer is found.

We have to admit to ourselves that the existence of the three components mentioned is resulting in many, many unnecessary, preventable deaths. The solution rests in every physician's keeping uppermost in his diagnostic horizon the ever present possibility of cancer of the stomach in a patient with any digestive complaints.

CRIPPLED CHILDREN IN VALLEY GIVEN HOSPITAL

The Earl C. Sams Foundation has promised approximately $300,000 to erect a 50-bed center for the care and treatment of poliomyelitis victims and children crippled by disease and accident in the Lower Rio Grande Valley, the Harlingen *Press* reports. The Children's Center will be a part of the new Valley Baptist Hospital to be erected in Harlingen through the joint efforts of the Baptist General Convention of Texas and the people in the Rio Grande Valley.

The foundation was established by the late Earl Corder Sams, former president of the J. C. Penney Company, who with Mrs. Sams annually spent a month or more in Brownsville with their daughters, Mesdames Dean Porter and Larry Lightner. Mr. and Mrs. Porter and Mr. and Mrs. Lightner are trustees of the foundation.

MASSIVE HEMORRHAGE FROM THE UPPER GASTROINTESTINAL TRACT

Surgical Management

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THE most common cause of massive hemorrhage from the upper gastrointestinal tract is peptic ulcer. It is the purpose of this paper to outline experiences in surgical management of this condition at the Roosevelt Hospital since 1946. During the six years from January 1, 1947, to December 31, 1952, there were 323 patients admitted to the hospital suffering from bleeding peptic ulcer. Of these, 174 were classified as hemorrhaging massively (table 1). This paper deals with this group, those whose lives were threatened by the extent of the hemorrhage. The main emphasis is placed on the emergency surgical treatment of this group, not only because it represents a radical departure from our former treatment, but also to add the report of our experiences to those of others.

TABLE 1.—*Hemorrhage from Peptic Ulcer at Roosevelt Hospital, 1940-1945 and 1947-1952.*

Type of Hemorrhage	No. Cases 1940-1945	No. Cases 1947-1952
Simple bleeding	97	149
Massive hemorrhage	50	174
Totals	147	323

The period 1940-1945 comprises only medically treated cases. The discrepancy in totals of the two six-year periods is explained by the fact that Roosevelt Hospital has a busy ambulance and emergency room service for which patients are accepted or transferred at the discretion of the resident physician and that during the 1947-1952 period the resident surgeons were actively interested in this type of patient.

Of the total number of patients with massive hemorrhage admitted to the surgical service in the indicated period, 85 were submitted to emergency surgery, while 40 were treated conservatively until bleeding had ceased and then underwent an elective or delayed operation (table 2). The remainder (49 cases) were treated conservatively, and all but the 4 patients in this group who died, ceased to bleed and were discharged from the hospital. Eight of these patients were readmitted later and underwent elective gastrectomy.

TABLE 2.—*Survival After Massive Hemorrhage from the Upper Gastrointestinal Tract, 1947-1952.*

Treatment	No. Cases	No. Deaths
Emergency operation	85	7
Elective operation	40	2
Conservative (nonoperative)	49	4
Totals	174	13

We did not have facilities to do blood volume determinations on these patients, so that other factors were relied upon in classifying them as massive bleeders. These criteria included visible evidence of the quantity of blood in vomitus or stool, rapidity of pulse, blood pressure, red blood cell count, hemoglobin determination, and hematocrit level. We found that a rapid pulse was the most consistent finding in those who had recently bled massively and was the most valuable indicator of recurrent bleeding. The blood pressure was unreliable at times because a fair percentage of our patients had hypertension, and we rarely had knowledge of the blood pressure levels they previously had maintained. The blood count and hemaglobin readings in some cases were completely misleading due to the extent of hemoconcentration and therefore could not be used as a reliable index to the extent of blood loss. In a few instances gross massive hemorrhage occurred after admission of the patient and the blood work-up which already had been performed was not repeated before proceeding with the operation. It is important to emphasize that not all of the massively bleeding patients had a blood pressure below 90 systolic or a red blood cell count below 2,500,000. In all instances, however, it was considered that life was threatened by the extent of blood loss.

It might be of interest to review the events which led us to abandon extreme conservatism in the management of severely bleeding peptic ulcer. At the Roosevelt Hospital until 1946, patients suffering from massive hemorrhage from the upper gastrointestinal tract were routinely admitted to the medical services. The medical management entailed cautious blood replacement and alternate trials with various types of dietary regimens. This was a procedure commonly followed in similar institutions all over the country. A surgical consultation was rarely requested at the onset of bleeding, and when the invitation came, it was usually as a last resort. The typical patient seen by the surgeon had ceased bleeding shortly after admission, only to suffer recurrent hemorrhage at intervals. He was slipping away in spite of repeated blood replacement and obviously would die unless the source of bleeding could be controlled. He was no fit

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**Chief of Surgical Service, Roosevelt Hospital.*

risk for surgery of the magnitude necessary to accomplish this objective.

This situation well illustrates the weakness of the surgical approach existing at that time. The surgical efforts to control massive hemorrhage in any of its stages were then so ineffective that a forbidding mortality resulted from their employment.

This was the status of our therapy until 1946. A surgical consultation occasionally was requested, but surgery rarely was attempted. The surgical literature at this time was beginning to rekindle interest in the subject and twice, once in 1945 and again early in 1946, we operated upon 2 patients who had been bleeding many days from duodenal ulcers. Both died; we believe they could have been saved had we followed the routine used today. The discussion aroused by these 2 deaths was responsible for the formulation of a plan of management that was employed in our hospital during the latter part of 1946 and put into effect on both surgical services beginning in 1947.

It was recognized by us at this time that after repetitions of blood depletion and replacement, a point is reached at which a patient cannot be relied upon to have the necessary recuperative powers to survive even though he is able to withstand the shock of operation. Accordingly it was arranged to have admitted to the surgical service all patients who were hemorrhaging from the upper gastrointestinal tract. The responsibility in this fashion was placed upon the surgeon to decide which patient was a candidate for operation and when it should be performed. On these two decisions lies either the success or failure of the surgical treatment of hemorrhage. We are more and more convinced that there are certain general rules to be followed but that they must not be too rigid.

MANAGEMENT

The patient or other source of information is carefully questioned as to the quantity and character of blood lost by vomitus or stool. Other important items of the history concern any story of indigestion or previous roentgen examinations that might indicate the existence of peptic ulcer. A hypertensive patient who knows the usual level of his blood pressure also can be helpful in an evaluation of the tension at the time of admission. Complete blood count, hematocrit, and blood urea nitrogen determinations are obtained.

Although blood in the intestinal tract may produce excessive blood urea nitrogen,[6] the levels shown in figure 1 indicate that clinically an elevation above 50 mg. per 100 cc. can be expected in only 10 per cent of the cases. The work of Gregory and others[4] has shown that prolonged drops of blood pressure into the shock levels will affect renal function and result in marked increases in the blood urea nitrogen. A reading above 50 mg. per 100 cc. therefore should be considered of serious import and, except under the most urgent circumstances, should be considered a reason for delaying operation until the patient's renal and cardiac status can be evaluated accurately. Some of these patients have hypertension with already established nephrosclerosis and thus represent poor risks for the added surgical trauma. In others the effect on renal function as shown at the time of admission may be secondary to a sustained drop in blood pressure into the shock levels. Such an effect on the kidney may have taken similar toll on myocardial nourishment, with the combination adding materially to the handicaps against the patient (cases 1 and 7). If more attention is paid to the fact that an elevated blood urea nitrogen level at the time of admission is of serious prognostic significance, we are sure the mortality can be lowered.

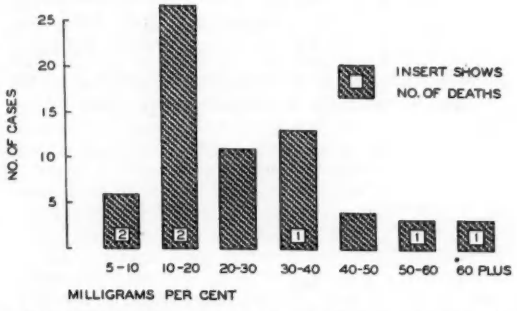

FIG. 1. Preoperative blood urea nitrogen determinations in 67 of 85 patients subjected to emergency gastrectomy for massive hemorrhage at Roosevelt Hospital, 1947-1952.

Following the taking of a careful history, nasogastric suction is commenced by placing a Levine tube in the stomach. It presents visible evidence of persistent or recurrent bleeding, and by removing gastric juices it seems to promote hemostasis. We never hesitate to order a swallow of diluted barium mixture to rule out esophageal varices if the patient gives a negative or doubtful history of ulcer. Great care is exerted to obtain this fluoroscopic and roentgen-ray examination with the least possible exertion on the part of the patient. In none of our cases was it harmful, and in many it has changed a doubtful to a positive diagnosis. A few patients, not included in this series, were shown to have esophageal varices and so avoided operation.

Transfusions of whole blood are commenced immediately. The amount given prior to operation has varied from 1 to 6 liters, depending upon the degree of depletion. Only occasionally has a patient in our group received more than 3 liters prior to operation.

If more was needed, the balance was given on the operating table.

INDICATIONS FOR SURGERY

We have no rigid rules by which to determine the patient who is to be submitted to surgery. A patient who has suffered previous hemorrhages of equal severity presents a strong indication for surgery, but

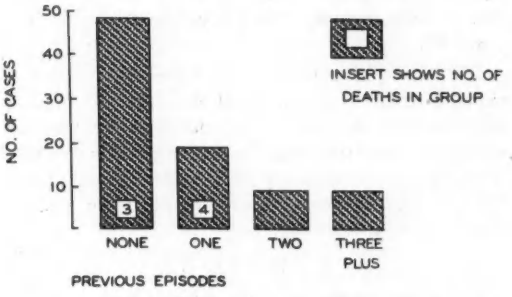

FIG. 2. Episodes of bleeding previous to the hospital admission for emergency gastrectomy for massive hemorrhage in 85 cases, 1947-1952.

this is not a necessary prerequisite. Of our 85 patients subjected to emergency gastrectomy 48 were experiencing their first hemorrhage (fig. 2) and 3 of these died. It had been our earlier misfortune to have patients succumb to fatal hemorrhage on the initial occasion and without the benefit of surgery. Age is definitely a factor, but never a limiting one (fig. 3). Our youngest patient was 22, and the oldest 81, but the majority were in the 40 to 60 year age group. It

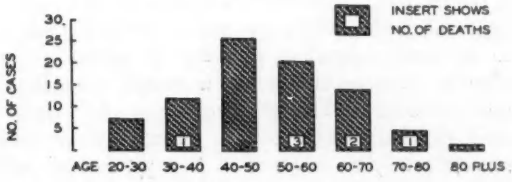

FIG. 3. Age incidence and related mortality in 85 cases of emergency gastrectomy for massive hemorrhage, 1947-1952. The only death in a patient less than 50 years of age occurred in the 1 total gastrectomy performed in this series (case 4).

is as great a mistake to rely upon the physiologic processes of youth to stop bleeding from an ulcer crater as it is to assume that an octogenarian cannot withstand emergency surgery.

We believe that the following are valid criteria for the employment of surgery:

1. Continued evidence of massive bleeding in spite of conservative measures.

2. Recurrent massive hemorrhage after a quiescent interval of hours or days.

3. Evidence of continuous oozing from an ulcer that makes it difficult to maintain normal blood levels by transfusion.

In general, we try to make our decision concerning surgery within seventy-two hours after admission of the patient, believing that delay beyond this period becomes dangerous procrastination. The poorest risk for surgical interference is the patient who has been bleeding for days or weeks and who has had his blood replaced time and again.

Contraindications for emergency surgery are the following:

1. Bleeding of doubtful origin.

2. Bleeding from esophageal varices.

3. Prompt cessation of hemorrhage under conservative management.

4. Admission blood urea nitrogen readings of 50 mg. per 100 cc. or above.

5. The presence of other serious disease, including hemophilia, which in itself would contraindicate surgery.

Many of the patients who presented contraindications to early surgery have had gastrectomy as an elective procedure. Elective operation has been performed during the same hospital admission when the patient has become a better risk or at a subsequent admission.

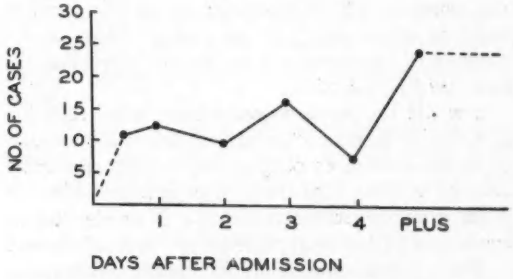

FIG. 4. Lapse of time between admission to the hospital and surgery in 85 cases of emergency gastrectomy for massive hemorrhage, 1947-1952.

The cases reported in this series come from two surgical services, and the operations either were performed or supervised by 18 attending surgeons. In spite of the rather large number of surgeons involved, the technique and surgical approach has been fundamentally similar. It is recognized that many of these patients bleed from an ulcer that cannot be seen or palpated through the walls of the duodenum or stomach. This fact has led us in such instances to employ exploratory gastrotomy which, as Amendola[2] recommends, may commence high in the fundus and extend well down into the duodenum. A more conservative gastrotomy incision is particularly useful in emptying the stomach of copious clots before attempting resection. Where esophageal varices or bleeding from

the lower duodenum and high jejunum were ruled out, we performed partial gastrectomy in all but 2 instances. In reviewing these 2 cases, in which the surgery was limited to a gastrotomy, one wonders if the surgeon was justified in the decision against performing a gastrectomy. This thought is expressed because in some of the gastrectomies the source of bleeding was discovered by the surgeon only after the stomach had been removed or subsequently it was shown by the pathologist to have arisen from a small previously undetected ulcer or from multiple gastric erosions. In the 2 cases negative by virtue of the gastrotomy, there still exists the possibility that a small acute ulcer or microscopic gastric erosion was present in the remaining fundus.

It is for this reason that one should not depend completely upon the gastrotomy incision to rule out the necessity for gastrectomy when inspection of the stomach lining fails to reveal the bleeding point. The rugal folds in the main body of the stomach often hide superficial ulcers that may not be discovered until the removed specimen is washed under a water tap.

The main values of a gastrotomy incision are (1) to rule out the presence of esophageal varices; (2) to note the presence or absence of fresh or old blood in the stomach; (3) temporarily to transfix actively bleeding ulcers; and (4) on rare occasions in the presence of high gastric ulcers, to aid in deciding the exact level of resection.

It would be unwise to recommend blind resection as a routine procedure because of the occasional case of bleeding from esophageal varices that cannot be detected without a gastrotomy. A stronger objection is the possible establishment of a principle that in inexperienced hands might lead to needless surgery.

When examination of the removed stomach specimen and careful scrutiny of the open duodenal stump fails to demonstrate the source of bleeding, the remaining fundus should be examined carefully. This of course means an open anastomosis. Following these principles, one can expect to find the lesion in practically every case (table 3). One must never overlook the rare possibility that the site of hemorrhage might be from a low lying duodenal ulcer, a lesion of the papilla of Vater, or an aneurysm communicating with the third part of the duodenum.

TABLE 3.—*Source of Bleeding in 85 Cases of Emergency Gastrectomy for Massive Hemorrhage, 1947-1952.*

Source of Bleeding	No. Cases
Duodenal ulcer	55
Gastric ulcer	22
Gastrojejunal ulcer	3
Gastric erosions	3
Carcinoma of stomach	1
Unknown	1

The type of gastrectomy employed has been uniformly the anterior Polya procedure with the Hoffmeister modification, placing the proximal loop of the jejunum to the lesser curvature, the operation ascribed to Von Eiselsberg. The amount of stomach removed varied from 65 to 75 per cent. In 1 case a total gastrectomy was performed on the erroneous impression that an ulcer high on the lesser curvature was carcinomatous. In this 32 year old woman the ulcer had perforated into the lesser omental sac and there was a copious amount of blood free in the general peritoneal cavity. The patient subsequently died (case 4).

We have not resorted to palliative surgery such as multiple artery ligations, local excisions of bleeding gastric ulcer, or any local, definitive hemostatic suturing of the ulcer base. It is thought that this type of operation is completely inadequate although artery ligation may be a useful adjunct during a gastrectomy.

TECHNIQUE

The ease with which these patients have tolerated the operative procedure has been a source of surprise and gratification. Adequate blood replacement is the major factor in this success. If necessary, blood should be given into two extremities from the start of the procedure, and it is recommended that a polyethylene tube be placed into a vein in the lower extremity preliminary to bringing the patient to the operating room. Once the blood supply to the stomach is ligated, and just prior to the actual removal of the organ, the active bleeding in the ulcer will cease as a rule. The case presenting an erect stump of artery in an ulcer base is often observed by the operator through a preliminary gastrotomy incision, and here transfixion of the bleeding point as a preliminary adjunct to definitive surgery is of value. Occasionally the bleeding gastroduodenal artery is buried so deeply in the scar tissue of the ulcer that it cannot be isolated until the later stages of the gastrectomy. In this insance it may be necessary to do a pylorotomy and temporarily control the bleeding before proceeding with the gastrectomy.

A drain is almost routinely placed down to the duodenal stump and usually brought out through a right upper quadrant stab wound. The method of abdominal wall closure varies considerably, the most popular being a layer closure with interrupted chromic gut. In addition there are inserted closely placed stay sutures that include all layers but the peritoneum. On occasion only closely spaced interrupted stay sutures of silk or wire are used to include all layers of the abdominal wall in the closure. In a few, wire sutures are similarly used, buried against the fascia but not including the skin. In our cases, it

cannot be said that any of these forms of closure have provided complete insurance against disruption.

The Levine tube is left in the resected stomach and continuous suction applied. The usual practice is to remove the tube when the material aspirated from the stomach either is clear bile or no longer shows evidence of old blood. This occurs from twelve to thirty-six hours after operation. Once the Levine tube has been removed it is wise to have it reinserted at twelve hour intervals (morning and evening) to estimate and remove the residual gastric contents. Once the residue is below 100 cc., this procedure of "bailing out" the stomach is no longer desirable.

In contrast to the ease with which these patients withstand the trauma of operation, the postoperative course has been hazardous as compared to the recovery period following elective gastrectomy. Notably frequent among the complications encountered has been wound disruption. It occurred in 8 cases (table 4). This high incidence is explained on the basis of

TABLE 4.—*Major Complications in 85 Cases of Emergency Gastrectomy for Massive Hemorrhage, 1947-1952.*

Complication	No. Cases	Deaths
Wound disruption	8	
Small bowel obstruction	4	
Pneumonia	4	
Duodenal fistula	3	
Pancreatic fistula	2	
Coronary occlusion	2	1
Uremia	2	2
Thrombophlebitis	3	
Postoperative wound hemorrhage (hemophilia)	1	1
Cardiac arrest (at operation for complication)	2	2

blood loss and protein imbalance. We have discovered no preventive for it and it continues to cause serious concern. It was a factor in 2 deaths in our series.

Duodenal fistula was also a more frequent complication than we are accustomed to observe under less urgent circumstances. It was encountered only following the removal of ulcers of the duodenum and immediate prepyloric area. The high incidence of this complication is attributed to the fact that we have attempted perhaps unwisely to remove too many of the technically difficult duodenal and prepyloric ulcers. The operator in his eagerness to remove a firmly fixed ulcer often finds himself irrevocably committed to an insecure duodenal closure even before dissection of the ulcer from the head of the pancreas has been accomplished. This is particularly likely to occur in the presence of a large bleeding ulcer on the posterior and postero-superior surfaces of the first part of the duodenum. The only escape from this dilemma is to dissect beyond the ulcer and obtain healthy duodenum, but the danger of damaging the common duct may prevent the necessary prosecution of this dissection.

Complete mobilization of the second part of the duodenum, a maneuver suggested by Marshall,[5] has been a great help to us, and we recommend its use early in the gastrectomy. The common duct is thus exposed above and below the point where it passes behind the duodenum, and its relationship to the indurated ulcer area can be plainly seen. The exposure thus afforded has been extremely helpful in differentiating between the case in which safe removal of the ulcer bearing duodenum can be accomplished and the one in which the ulcer should be left undisturbed and the duodenal stump closed proximal to it.

When the decision is made not to remove the ulcer, and where such a step means cutting across the stomach proximal to the pylorus, it is important to excise the antral mucosa and close the stump as suggested by Bancroft.[3]

Other complications played a minor role to that of wound disruption (table 4). There were 4 cases of small bowel obstruction that required reoperation. One of these patients died from cardiac arrest during the induction of anesthesia (case 6) and another from associated nephrosclerosis and uremia (case 3). There were 2 known cases of coronary occlusion, one of which was fatal, and 1 patient (case 7) who died suddenly on the fifth postoperative day from what was probably a massive myocardial infarction (unlisted in table 4 because there was no autopsy). There were 2 cases in which uremia played a major part in the fatal outcome (cases 1 and 3).

There were many minor complications including atelectasis, mild wound infection, and 4 cases of transient mild jaundice. There were 2 cases in which mild postoperative gastric hemorrhage was thought to have arisen from the line of anastomosis.

In treating wound disruption it is our opinion that the use of general anesthesia is hazardous because it enhances the possibilities of death from aspiration or cardiac arrest. Sedation of the patient with morphine and closure of the wound after generous infiltration of the abdominal wall layers with Novocain is an extremely easy and a safe method. The technique of closure entails the insertion of closely spaced interrupted sutures of braided silk or wire to include all layers of the abdominal wall.

A helpful method of treatment of an established duodenal or pancreatic fistula which persists beyond the usual period and which shows no tendency to spontaneous cessation is the use of strong suction. A snugly fitting catheter is placed into the fistulous tract a distance of no more than half its depth, and continuous suction applied. The strength of the suction is sufficient to collapse completely the tract

beyond the tip of the catheter, thus promoting closure. In 1 case, drainage permanently ceased after twenty-four hours of this treatment.

ANALYSIS OF DEATHS

An analysis of the deaths in the emergency operation group of patients in our series follows:

CASE 1 (1947).—J. H., a 56 year old man, began to have "coffee ground" vomitus fifteen hours before coming to the hospital. He was admitted in marked shock. Blood pressure was scarcely obtainable at 30 systolic, and blood urea nitrogen measured 94 mg. per 100 cc. (not reported until after operation). Subtotal gastrectomy was done forty-eight hours after admission for bleeding duodenal ulcer. The common duct was injured in removing the ulcer, and a T tube was placed in the rent to act as a common duct drain. Death occurred on the fourth postoperative day from uremia. No autopsy was performed.

Comment: This patient was not a proper subject for emergency surgery. Delay, with a drop in the blood urea nitrogen level, might have permitted safer elective surgery.

CASE 2 (1948).—T. S., a 56 year old man and a known hemophiliac since youth, had had one previous gastrointestinal hemorrhage eight months before. Profuse hematemesis of "coffee ground" material began the day before the patient entered the hospital and continued until gastrectomy twenty-four hours after admission. A bleeding duodenal ulcer was found involving the posterior wall of the first part of the duodenum. A stormy convalescence followed with continual oozing of blood from the drain that led to the duodenal stump. Multiple small transfusions were given in an attempt to reduce the clotting time. Wound separation on the tenth postoperative day was controlled by adhesive strapping. The patient died on the eighteenth postoperative day. At autopsy the only significant finding was an abdomen filled with old blood clots and considerable fresh blood.

Comment: This was a desperate case. Hemophilia probably represents a contraindication to the surgical approach to massive hemorrhage.

CASE 3 (1950).—W. P., a 68 year old man with severe hypertension, was admitted for treatment of low back pain. He suffered massive hemorrhage five days after admission to the hospital. Hemoglobin measured 4.0 Gm. per 100 cc. of blood, the red blood cell count was 1,970,000 per cubic millimeter, and the blood urea nitrogen was 8.0 mg. per 100 cc. A 6,000 cc. blood transfusion was given preoperatively. Operation was performed twenty-four hours after hemorrhage commenced; the blood pressure was 60/0 at the start of the procedure. An additional 4,000 cc. of blood was transfused on the operating table. The blood pressure was not obtainable during the first hour of the operation. At this time bleeding was controlled and the blood pressure gradually rose and stabilized at 140/100. The patient was well until the seventh postoperative day, when he developed signs of incomplete obstruction. This progressed, and on the twenty-first postoperative day, an entero-enterostomy for efferent loop obstruction was performed. The patient developed oliguria, then cardiac decompensation, and died nineteen days after the second operation. Autopsy revealed nephrosclerosis and tubular necrosis as the main cause of death.

Comment: This patient would have died without the emergency surgical intervention and probably would have lived had he not developed small bowel obstruction.

CASE 4 (1950).—E. T., a 32 year old woman, was admitted with severe epigastric pain. A gastrointestinal series and gallbladder visualization were negative. On the fifteenth hospital day she had a massive gastric hemorrhage of bright red blood and dark red blood in her stool. The blood pressure dropped to 80/50 and rose to 115/70 after a pressure transfusion. She bled again one hour later and was then taken to the operating room. A 5,000 cc. blood transfusion was given during the operative procedure. Exploration revealed a perforated lesion of the posterior aspect of the cardiac end of the stomach near its junction with the esophagus, and quantities of fresh blood were found in the peritoneal cavity. The incision was converted into a thoracoabdominal wound, and a total gastrectomy was performed in the belief that the lesion was malignant. The final pathologic report was "chronic perforated gastric ulcer." Convalescence was stormy with considerable cyanosis requiring an oxygen tent. On the seventh postoperative day the abdominal part of her wound disrupted but was temporarily closed with adhesive strapping. The following day formal closure was attempted under Pentothal anesthesia. The patient aspirated jejunal contents, developed a cardiac arrest, and died in spite of an attempt at cardiac massage.

Comment: As a result of similar experiences in closing wound disruptions under general anesthesia, we now resort to local anesthesia.

CASE 5 (1951).—L. O., a 55 year old man, a chronic alcoholic, was admitted to the surgical service for the care of varicose ulcers and dermatitis of the lower extremities. His blood pressure was 200/110 and he was known to be suffering from a duodenal ulcer. On the second hospital day he vomited 200 cc. of "coffee ground" material and subsequently had brown but guaiac positive stools. During the next few days he became disoriented, probably due to alcohol withdrawal, but the disorientation was transient. Three weeks after admission he had a massive hemorrhage, and the hematocrit level, which had been within normal limits, dropped to 25 per cent and the blood pressure fell to 140/80. The blood urea nitrogen level at this time was 32.5 mg. per 100 cc. Clinical evidence of bleeding persisted in spite of transfusions, and on the twenty-fourth hospital day an emergency gastrectomy was performed, and a posterior wall duodenal ulcer was removed. The postoperative course was progressively downhill. Blood urea nitrogen increased to 55 mg. per 100 cc. The patient excreted little urine, and he died on the fifth postoperative day. Autopsy revealed death to be due to an acute massive myocardial infarction.

Comment: This patient should have been considered too poor a risk for surgery.

CASE 6 (1952).—H. B., a 66 year old man, was admitted to the hospital with a three day history of tarry stools and with bright red vomitus on the day of admission. The hematocrit level was 25 per cent, blood urea nitrogen 30.8 mg. per 100 cc., and blood pressure 125/75, and his general condition was good. Surgical intervention was not contemplated, but on the third hospital day bleeding recurred and an emergency gastrectomy was performed. Convalescence was uneventful until the fourth day, when he began to show evidence of some gastric retention. This symptom progressed and a roentgenogram showed evidence of a high, efferent loop, partial obstruction which on the tenth

postoperative day became complete, and the patient was taken to the operating room for an exploratory laparotomy. During the induction of anesthesia with Pentothal and Intocostrin, he suffered a cardiac arrest and died in spite of an attempt at cardiac massage.

CASE 7 (1952).—J. W. B., a 75 year old man, was admitted to the hospital eighteen hours after the onset of weakness and the passage of black stools. He gave the history of one similar episode three years before. There had been no nausea or vomiting. On admission he was weak but not in shock. The pulse rate was 90 per minute and his blood pressure 100/60. The hemoglobin was 10.1 Gm. and the blood urea nitrogen 51.8 mg. per 100 cc. It was decided to treat the patient conservatively, and he was given 500 cc. of blood by transfusion. Late on the second hospital day the bleeding recurred massively and the patient went into shock. The hemoglobin, which had already dropped to 9.0 Gm., fell to 8.0 Gm., and the patient was given 1,000 cc. of blood. At this time the blood urea nitrogen had dropped to 49.9 mg. per 100 cc. The morning of the third hospital day, fifty hours after admission, a gastrectomy was performed as an emergency because the patient showed clinical evidence of continued bleeding. Two duodenal ulcers were found and both were removed with the stomach specimen. Convalescence was uneventful except for an elevation of temperature to 104 F. on the second postoperative day. While in a wheel chair on the fifth postoperative day, the patient developed extreme dyspnea, became red faced, and then complained of severe bilateral lower abdominal pain. He died within three minutes of the onset of the symptoms. No autopsy was done.

Comment: It is assumed that this patient died from a massive myocardial infarction. His high blood urea nitrogen level (above 50 mg. per 100 cc. on admission) represented what we now believe to be a danger signal. Except under the most urgent circumstances delay is indicated until the renal and cardiac status of such patients can be accurately evaluated and perhaps improved.

An analysis of the deaths in the delayed or elective surgery group follows:

CASE 8 (1948).—H. M. W., a 69 year old man, was readmitted to the hospital for medical treatment of a chronic duodenal ulcer. He was also suffering from pulmonary emphysema and cor pulmonale. There was no previous history of melena or hematemesis. Shortly after admission he began to have almost continuous tarry stools, and blood studies at this time showed hemoglobin 7 Gm. and red blood cells 2,500,000. Bleeding ceased after several weeks only to recur at intervals, and he was given many transfusions. On several occasions surgical consultations were obtained, but the patient was considered too poor a risk for operation. Finally, 116 days after his admission to the hospital, a rapid pyloric exclusion type of gastrectomy was performed; the duodenal ulcer not being disturbed. The patient died on the fourth postoperative day with oliguria and a blood urea nitrogen of 67 mg. per 100 cc.

Comment: This patient should have been considered too poor a risk for surgery.

CASE 9 (1952).—R. A., a 54 year old man, was admitted to the hospital following a twenty-four hour period of bleeding massively from the upper gastrointestinal tract. He had a long history as a sufferer from a chronic duodenal ulcer with several previous episodes of bleeding and had hypertension with a blood pressure of 210/120 on admission. A total of 6,000 cc. of blood was administered by transfusion during the first forty-eight hours, and at the end of this period, there was no further clinical evidence of bleeding. The blood urea nitrogen on admission was 99 mg. per 100 cc.; it rose to 107 mg. and on the eighth hospital day came down to 44 mg. A partial gastrectomy was performed on the eleventh hospital day as an elective procedure and a prepyloric gastric ulcer was removed. The postoperative course was marked by gradually increasing disorientation; the blood urea nitrogen level gradually rose to 175 mg. per 100 cc., and the patient died on the nineteenth postoperative day. At autopsy the kidneys were found to be small and markedly nephrosclerotic.

Comment: This case illustrates a real contraindication to surgery: the combination of hypertension and an admission blood urea nitrogen level of 99 mg. per 100 cc.

RESULTS

In analyzing the results of our approach to the management of massive hemorrhage, attention is directed to table 2. It compares the 85 patients who underwent emergency gastrectomy and the attendant mortality with the 40 who ceased hemorrhaging and underwent an elective procedure later during the same hospital admission. It also lists 49 patients who had no surgery because they were considered to be candidates that could safely weather the storm. Two deaths in the latter group represent two mistakes in judgment. Another patient was considered too poor a surgical risk and died shortly after admission without surgical intervention. Still another was on the medical service two days before being treated for massive myocardial infarction before the true cause of his shocked state was discovered. He died before we were able to get him in shape to withstand surgery.

A review of the deaths in the emergency group (cases 1 to 7) reveals that a few deaths might have been avoided if surgery had been delayed. Each added year of experience has modified our ideas, and our initial enthusiasm for surgery is being tempered with conservatism. We have made mistakes in a few instances in which we believed early surgery was safer than delay, but only once have we repeated the old mistake of delaying too long (case 8).

Death as a result of emergency gastrectomy occurred in less than one-tenth of the cases, the same level which prevailed in those who were subjected to no surgery during the 1947-1952 period. Deaths in only one-twentieth of the patients subjected to elective gastrectomy brought the overall mortality for massive hemorrhage down to less than 1 death in 13 cases. The surgical management employed during the past six years thus seems justified when this figure is compared with the 1 death in 5 cases which prevailed during the previous six year period of conservative, nonoperative management.

SUMMARY

A six year experience with the surgical management of 174 cases of massive gastroduodenal hemorrhage is reviewed. Eighty-five patients were subjected to emergency gastrectomy; 40 underwent elective gastrectomy after hemorrhage had ceased and during the same hospital admission; 49 were treated conservatively without operation.

The treatment of these cases is outlined, and the indications and contraindications to operation are discussed. A blood urea nitrogen elevation above 50 mg. per 100 cc. upon admission of the patient to the hospital is considered a serious prognostic sign and, except under the most urgent circumstances, warrants delay until the patient's renal and cardiac status are thoroughly evaluated.

Duodenal ulcer represented the most common source of hemorrhage (55 of 85 cases), and carcinoma as a cause was encountered only once.

The patients withstand operation well if bleeding has not been allowed to continue over too long a period, and if they receive adequate blood replacement before and during the operation.

The postoperative convalescence following emergency gastrectomy for hemorrhage is likely to be a stormy one with wound disruption occurring in 10 per cent of the cases.

Patients suffering from massive gastroduodenal hemorrhage present potential surgical problems and should be admitted to the surgical service. Gastrectomy with or without preliminary gastrotomy is the operative procedure of choice. Only a small proportion of the total will require operation within twenty-four hours of admission. A larger number will suffer serious recurring hemorrhage after a quiescent interval and then should be subjected to a gastrectomy. The remainder can be discharged under medical management. Many will need to return at a later date for an elective operation.

The surgical management which we have employed during the past six years has reduced the mortality of massive hemorrhage in our hospital from 1 death in 5 cases to less than 1 death in 13 cases.

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ABSTRACT OF DISCUSSION

Dr. GEORGE W. WALDRON, Houston: Dr. Thompson has given an excellent report of progress in the treatment of a serious and sometimes baffling problem. His emphasis upon an immediate surgical appraisal of each case is important. A surgeon should be on the job from the time of admission of the patient, not only to decide whether surgery is indicated at once, but also to be able to follow through with a decision as to whether surgery is needed at all and if so, at what point.

On a hospital service such as Dr. Thompson directs it is possible to control admissions to various services, but the same cooperation in reference to massive hemorrhage must be attained throughout private practice if the death rate in such a condition is to be widely reduced. Recent conversations with a number of internists indicate that they, as a group, are greatly interested in early surgery in these cases.

I believe that there should be no question about blood replacement on admission and also during surgery. It always has seemed unsafe to allow a patient to bleed down to a point at which the blood pressure is so low that coagulation may be enhanced. Needless loss of life will occur if such a course is pursued.

The patient's age or the number of previous hemorrhages will not necessarily determine the urgency of surgery at the time the patient is first seen, though these facts may have some bearing on any decision. Certainly the importance of judging when surgery is to be done is just as great as whether it is to be done at all.

There is one group of cases which has been uppermost in the minds of surgeons in this area recently and that is the group having massive hemorrhage from the entire gastric mucosa or a large part if it is mainly the upper half. Three such cases have been reported in Houston in the past year or so. Apparently the condition is a type of hemorrhagic gastritis and the ulcerations are punctate in character. The lesions are hard to find at operation and the usual subtotal gastrectomy will not stop the bleeding, nor will an attempt to tie off the blood supply to the stomach. If this condition is confined to the stomach, a total gastrectomy will stop the bleeding, but if the upper small bowel is likewise affected, it will not control it.

I recommend Dr. Thompson's opinion regarding gastrotomy and open anastomosis. One must see the inside of the stomach and the duodenum to keep out of trouble in many cases. An open anastomosis also allows definite control of hemorrhage and causes less trauma to the remaining tissues.

One point regarding the duodenal stump is helpful and that is the utilization of a catheter in the stump for external drainage in cases in which the stump cannot be satisfactorily closed following the resection of a duodenal ulcer. In seven to ten days the catheter can be removed and the tract will close almost immediately. There is no skin irritation. In such a case I find this method preferable to leaving a soft rubber drain in the region of the poorly closed stump.

Regarding closure of the abdominal wall, I believe that the so-called secondary type of closure should be done at the initial operation. Few of these will break down.

"Should our towns and cities be attacked, a civil defense program instantly ready to minimize casualties and restore facilities vital to the prosecution of the war may mean the difference between victory and defeat. . . ."—U. S. Congressman Melvin Price.

DUODENAL DIVERTICULA

Radiologic Evaluation

R. P. O'BANNON, M.D., and OTTO H. GRUNOW, M.D.,
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SACCULATIONS in various parts of the gastrointestinal tract have stirred the interest of many radiologists. Although diverticula rarely produce much discomfort, their presence often is strikingly outlined and commands one's attention. In spite of good contrast there are times when the limitations of fluoroscopy and radiography impose restrictions upon the radiologist's interpretation. Such a difficulty was encountered in the following case.

CASE 1.—A 60 year old white woman with known lung metastases, who had had a carcinomatous breast removed in September, 1950, entered the hospital March 3, 1952, because of massive melena. A transfusion using 1,500 cc. of blood was required to bring the blood picture to a normal state.

A gastrointestinal tract examination performed a short time thereafter revealed that the duodenal bulb was of normal shape and activity but lay closer to the midline than usual. The loop extended far posteriorly and upward almost to the diaphragm. It filled rapidly and remained greatly dilated. Little barium passed through the duodenojejunal junction, which lay far to the right and in the usual position of the bulb. Multiple diverticula were present in the third portion and averaged 1 cm. in diameter. The findings were puzzling and the true interpretation was not evident.

Because of impending obstruction a laparotomy was carried out April 9. The surgeon reported the presence of a diverticulum measuring 15 by 20 cm. which arose from the lateral aspect of the descending duodenum and which had a large stoma. It was adherent to the posterior peritoneal surface and was not removed because of the patient's condition. The hepatoduodenal portion, as well as that portion of the gastrohepatic ligament attached to the antrum, was absent and allowed considerable mobility of the distal part of the stomach and the proximal portion of the duodenum. Several large serous cysts on the liver were present and one impinged upon the duodenojejunal flexure producing a partial obstruction. These were aspirated and the obstruction relieved.

A congenital deformity, the absence of the hepatoduodenal and gastric ligaments, therefore accounted for the unusual position of the organs. The large rapidly filling diverticulum had mistakenly been taken to be the duodenum. Its peculiarly large size and position may have been attributable to the congenital absence of the ligaments. The unanticipated and invisible cysts on the liver acted as the obstructing agent.

The unexpected surgical findings in this case first awakened our interest in diverticula. Since then we have observed much of interest, and in this paper we are presenting the fruits of our studies. In sequence are discussed the various types of diverticula, their origin, their incidence with the factors involved, their location, and finally their clinical significance.

Read before the Section on Radiology, Texas Medical Association, Annual Session, Houston, April 28, 1953.

NOMENCLATURE AND TYPES

The diverticula most commonly encountered probably belong to the false variety and could be called much more correctly mucosal herniations. By this term is meant that the diverticulum is a protrusion of the mucosa, submucosa, and muscularis through a defect in the longitudinal and circular muscular layers. It is lined externally by the serosa. In contrast, the true diverticulum is a bulge composed of all layers. Both the false and true diverticula may be of congenital origin; in the false the mucosa pushes through a developmental defect in the muscular layers, whereas in the true all layers form a sac from a bud during differentiation in growth. False diverticula most frequently are acquired. True diverticula also may be acquired but the premise would postulate disease in an adjacent organ. Inflammation in a lymph node followed by contracting adhesions might bring about such a defect.

One group of diverticula called pseudodiverticula must be distinguished from other types since diverticula in this class lie only in the duodenal bulb and represent the uninvolved remains of the bulb which has been puckered by contracting ulcer scars. Although the prefix "pseudo" is commonly translated by the word "false," in this case it does not refer to the commonly accepted classification of false diverticulum.

A chart derived from Blackwell's[3] discussion may make the differences clearer.

1. True diverticula include all layers of the gut. They may be (a) congenital (primary) or (b) acquired (secondary).

2. False diverticula include only mucosal layers protruding through the outer musculature. They may be (a) congenital (primary) or (b) acquired (secondary).

3. Pseudodiverticula are sacculations produced by the puckering action of contracting ulcer scars.

Radiographically, it is difficult to differentiate between the various types excepting pseudodiverticula in the first portion of the duodenum.

Whatever their type, diverticula consist of blind flasklike structures lined with mucous membrane, having a tunica muscularis and usually having a well formed neck. In consequence of a lack of muscularis propia they have no well defined peristaltic activity. They vary considerably in size and are characterized by a wide mouth which opens into the duodenum. In studies on cadavers Grant[10] noted that 60 per cent of diverticula had a mushroom or globular appearance, 15 per cent had a conical shape, and 25 per cent were tubular. At times they may be bilobed. Of interest with regard to the previous description, Knetsch[13] reported the instance of an unusually large diverticulum from the region of Vater's papilla which exhibited regular intrinsic peristaltic activity. One might conjecture that it represented a duplication of the duodenum or perhaps a true diverticulum of congenital origin.

Diverticula vary considerably in size. In our series of 22 cases the smallest measured 5 mm. in diameter, but it is evident that smaller ones exist. The largest was 8 cm. in diameter and was exceeded only by that in case 1, which was not included in this series. The latter, measuring 15 by 20 cm., may represent the largest recorded in the literature. One that may have been larger is attributed to Lockwood,[14] who mentioned a diverticulum containing 1,000 cc. of fluid.

ORIGIN

Although diverticula are frequently seen and studied, their origin is still shrouded in conjecture. The explanation based on a defect in development is easily accepted since one is accustomed to see congenital variations in other portions of the body.

The origin of acquired diverticula is less readily explained. The postulate that an area of lowered resistance exists in the wall where the vessels penetrate is commonly accepted. Beck[2] presented a theory of the origin of diverticula in the stomach which is unique and difficult to understand without a knowledge of the postulate of Gösta Forssell.[9] Gastritis is required. As the increased blood supply incident to the inflammation subsides, the volume and viscosity of the submucosa changes leaving a depression into

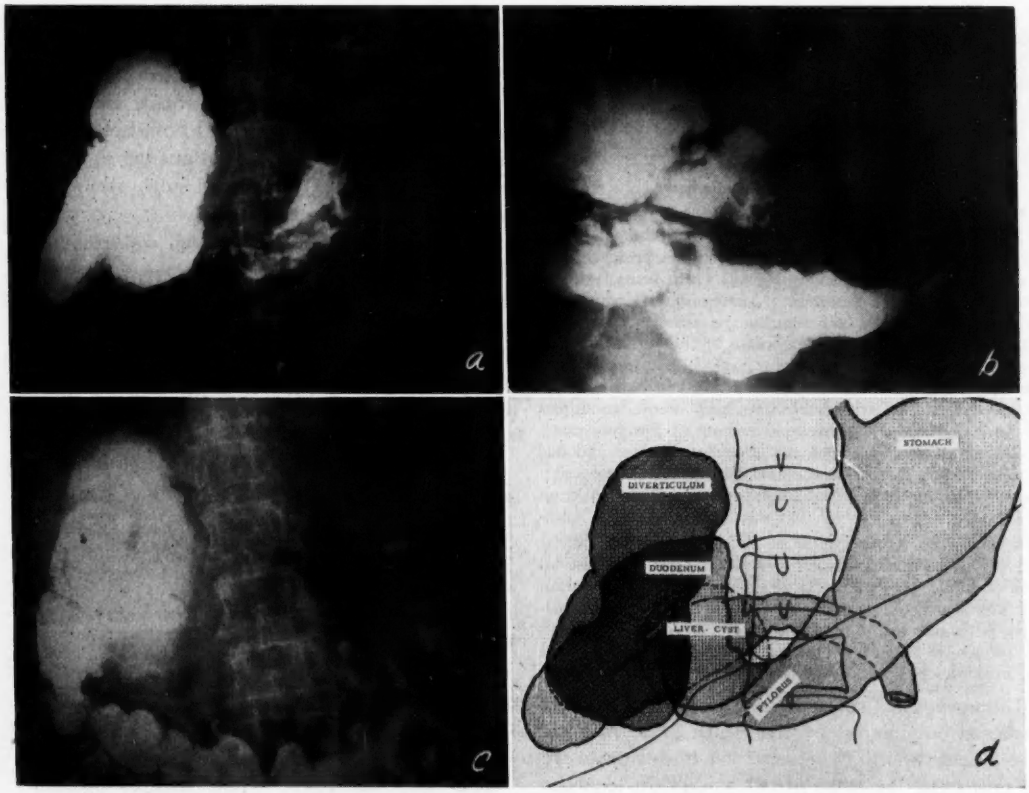

FIG. 1. Case 1. a. Anteroposterior view of the stomach and diverticulum.
b. Lateral view of the stomach and diverticulum.
c. Retention of barium in the diverticulum twenty-four hours later.
d. Diagram of the operative findings. Note the anomalous position of the duodenum, the cyst on the liver, and the large diverticulum.

which the mucosa flows by "autoplasticity." It is difficult to see how this theory could be applied to the duodenum.

Since the incidence of duodenal diverticula increases as the age of the person increases, Butler[4] suggests that they originate as traction diverticula at the site of arteriosclerotic intraduodenal vessels. In this early phase they still possess all the muscle coats, which split as the defect enlarges. Undoubtedly associated with vascular changes are senile changes in the supporting tissues such as are encountered in instances of hiatus hernia and inguinal hernia which frequently become manifest in later life.

Additional theories regarding the mode of development of diverticula may be summarized as follows: Some believe that traction of the adjacent blood vessels secondary to changes in nutrition and occasioned by visceroptosis may produce the focal points; others believe that local defects are produced by fatty degeneration, others that the inherent greater duodenal pressure occasioned by the closure of the pyloric sphincter plays an important part, and still others that a localized pancreatic necrosis is important. The merits and failings of the collected theories have been reviewed by Odgers.[17]

The theory which is probably the most acceptable, though not completely convincing, is set forth in Odgers' article in a passage which reads as follows:

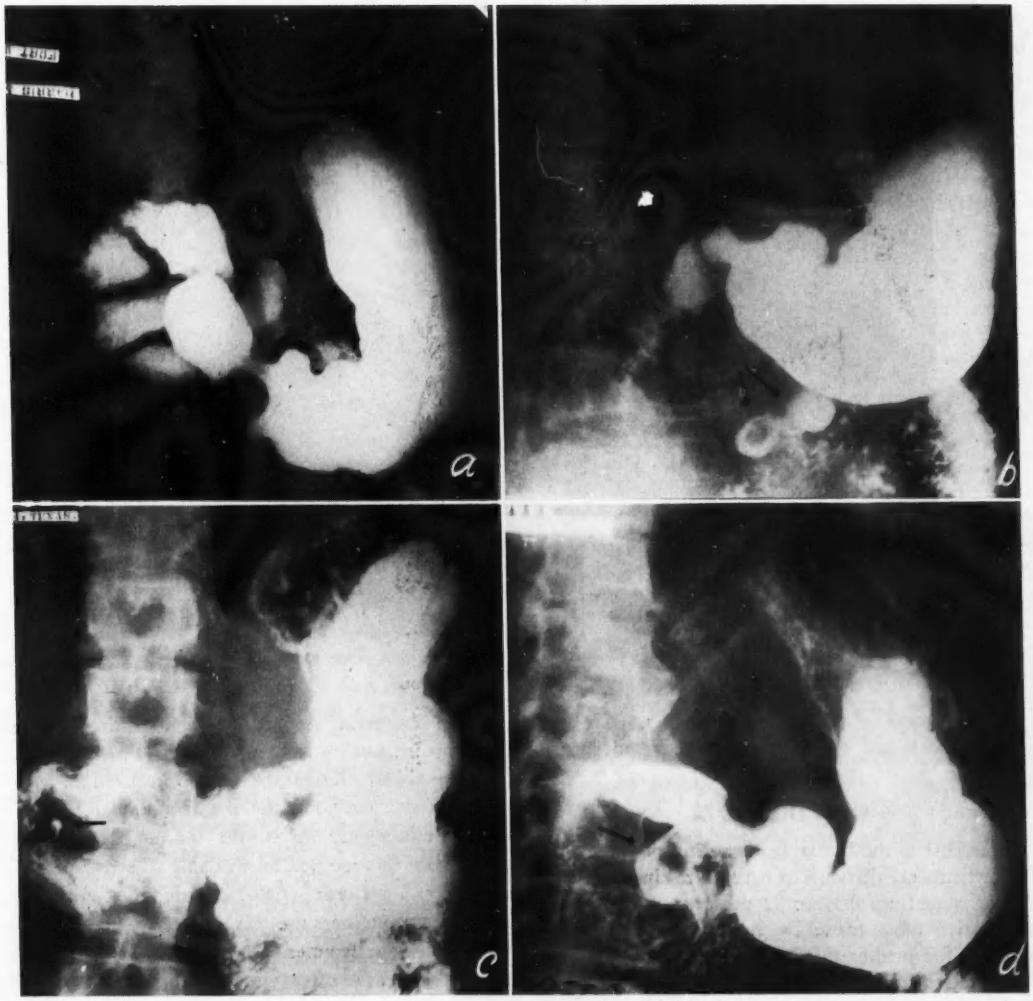

FIG. 2. a. Multiple diverticula in the descending and ascending portions of the duodenum. b. A bilobate duodenal diverticulum. c and d. Small (*a*) and large (*b*) duodenal diverticula.

"It is suggested that, at some time during the later six months of fœtal life, an exaggerated downgrowth of Lieberkühn's crypts may reach lacunæ in the muscular coat, where this is pierced by the blood vessels: the perivascular sheaths of the latter will then provide an easy path for any further extension. From such weak spots pulsion diverticula may arise during adult life."

Of particular interest and representing a source of speculation is the frequency with which deposits of aberrant pancreatic tissue are observed in the neighborhood of diverticula. At times this has been true in the esophagus, stomach, and duodenum. Horton and Mueller[11] have studied this phase thoroughly in postmortem material and have concluded that ectopic pancreatic tissue is the cause of the small local areas of decreased resistance which later allow the mucosa to protrude. They disagree with Odger's theory and maintain that vessels suitable for the production of weak areas do not commonly occur at the site of the diverticula.

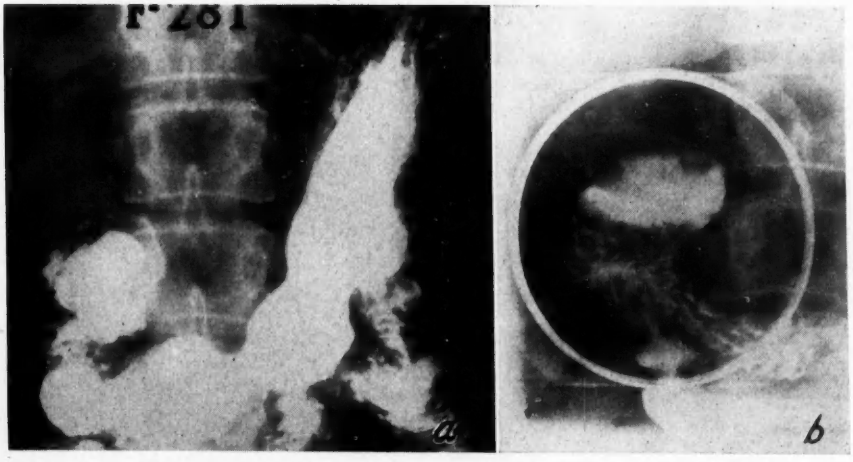

FIG. 3. The effect of spot film radiography with compression. a. Routine film which is difficult to interpret. b. A spot film made with compression clearly reveals the diverticulum.

Such are some of the common theories. They represent a great deal of thought but leave much for speculation.

INCIDENCE

Statements in the literature regarding the incidence of diverticula are difficult to harmonize since the percentages vary from 0.32 to 22 per cent. An excellent comparative table made by Ackermann[1] might be consulted for further information.

The examination of cadavers in the dissecting room should be the most accurate, yet here the incidence varies from 16 to 22 per cent. Obviously some difficulty in detecting diverticula was anticipated since both Grant and Ackermann injected specimens with a solidifying mass before studying them. Because of the care taken, one would expect that their figures should be the more representative.

Information obtained from the autopsy table also should be fairly accurate, yet percentages from this source vary from 3 to 13.3 per cent. The undertaking of an autopsy is a large task. Although the approach may be conscientious, limitations are inherent. Interest in a particular organ; limitations of time, technique, experience, and conscientiousness of the prosector; and complexity of the anatomy about the diverticulum may determine the number of diverticula detected. Statistics drawn over a period of many years from the work of many prosectors in a department may not be as accurate as the large figures lead one to believe.

The radiographic examination is limited by similar factors; witness the variation in the incidences reported by radiologists in the literature, which vary from 0.16 to 5.19 per cent. Case,[5] who first discovered the duodenal diverticulum roentgenologically, developed an interesting technique which required the patient to turn rapidly from his right side to the supine position, holding his breath in deep inspiration, while the examiner occluded the duodenojejunal juncture and simultaneously forced the barium through the pylorus. By this method he was able to show an incidence of 1.3 per cent in 6,847 examinations. Although only a few examiners use this maneuver, for the most part the patient assumes the various positions and experiences pressure of varying degree to the duodenojejunal area during the examination.

Weig[19] has expressed the opinion that an extra ef-

fort to demonstrate diverticula is in order since they do not fill readily in the upright position. Davis and Budd[7] have thought that the size is important, in that the smaller diverticula fill less rapidly. It is interesting to note that the smallest one recorded in the dissections of Ackermann,[1] who reported an incidence of 22 per cent, was only 5 mm. We encountered two of similar size in 22 cases. We do not believe that special methods of examination are ordinarily necessary. An observant eye alert for any unusual findings, synchronized with the use of one's ingenuity to demonstrate the presence of diverticula, is all that is required.

As suggested by Weintraub and Tuggle,[20] the diverticulum must at times be considered a dynamic rather than a static structure. They mean that diverticula may be present at one time and absent at another. Several instances of such an observation are in the literature. A parallel phenomenon might be seen during curling in the esophagus when the contraction may be so severe and prolonged as to suggest multiple diverticula.

In review, the variability in reported incidences may be dependent on the (1) source of material—whether from the dissecting room, the autopsy table, or radiographic examination—and on the (2) qualifications of the observer—his experience, training, conscientiousness, and interest.

Aside from the irreducible minimum of oversight inherent in the examination, one factor, the views of several authors notwithstanding, must be considered important, namely, the age of the patient in whom a diverticulum is present. The age was first stressed by Grant.[10] Only by such a postulate is it possible to explain the extraordinarily low incidence of 0.32 per cent reported by Whitmore,[21] who observed only 18 cases in 5,712 examinations; the material for his paper was obtained primarily from the examinations of military service personnel. In an addendum he reported an increase in incidence to 3.9 per cent in civilian practice. Fawcitt[8] likewise reported a low incidence of 0.63 per cent in 3,000 examinations done on military personnel.

We have kept records on a series of 400 routine examinations of the upper gastrointestinal tract. Although a definite interest in the detection of diverticula was manifest, no special procedures were carried out to determine their absolute presence or absence. From this group 22 cases of diverticula were obtained, representing an apparent incidence of 5.5 per cent. Since our figures were somewhat higher than those in the literature, which varied from 0.16 to 5.19 per cent, we examined the group according to age decades but failed to note an unusual predominance in any decade. We were of the opinion that the ages of our patients were representative of the average clinic and hospital population.

The findings of our study are summarized in table 1.

TABLE 1.—*Incidence of Duodenal Diverticula According to Age Decades in 400 Gastrointestinal Studies.*

Decade	No. of Patients	Patients with Diverticula	
		No.	%
1-9	7	0	
10-19	6	0	
20-29	51	0	
30-39	71	3	4.2
40-49	78	3	3.8
50-59	100	6	6.0
60-69	60	7	11.7
70-79	22	3	13.6
80-89	5	0	

Horton and Mueller[11] and Davis and Budd[7] also recorded the number of diverticula according to age decades but did not include the number of patients in each decade examined, so that no true age relationship can be drawn.

Grant[10] divided his patients into two groups; the age of 52 years formed the division point. He noted a percentage of 3.9 for those younger and 15.8 for those older. It was on this basis supported by statistical testing that he maintained there was a greater incidence after the age of 52. If our group is divided in the same manner, an incidence of 2.8 per cent for those younger than 50 years and of 8.5 per cent for those older is obtained. These figures and the trend of the percentages noted in table 1 give added weight to the factor of aging in the appearance of duodenal diverticula.

LOCATION

The location of diverticula is also of interest. The majority lie in the inner curve of the second portion of the duodenum, that portion in closest association with the pancreas. It represents the mesenteric portion of the bowel. Though many of the sacculations may lie within the pancreatic parenchyma, a goodly number also lie anterior and posterior to the organ so that no absolute relationship between diverticula and the pancreas can be drawn. The usual findings in the area represent false diverticula. A comparison of the location of diverticula according to various authors is made in table 2; our observations are in close agreement with those of other authors.

TABLE 2.—*Anatomic Distribution of Duodenal Diverticula.*

	Portion of Duodenum			
	First %	Second %	Third %	Fourth %
Fifth Avenue Clinic and Harris Hospital	0	64	16	20
Weintraub and Tuggle	1.7	72.5	14.9	10.9
Davis and Budd	1.7	85	13.3	
Whitmore	0	60	30	

SIGNIFICANCE

To many, the presence of diverticula represents only an incidental finding indicating that a complete examination has been performed. The attitude is based on fact, since the incidence of secondary disease in such a lesion is infrequent. No conclusive evidence of disease could be ascribed to the diverticula found in our study. However, at frequent intervals a warning in the literature that diverticula may become diseased and require surgical removal if medical care fails is recorded.

Diverticulosis of the colon is relatively common and retention of fecal material for long periods is accepted. The frequency of diverticulitis in diverticulosis, however, is not great. It would therefore be probable that even less secondary disease would be anticipated in the duodenum, where the material is sterile, the ostia large, and drainage rapid. In retrospect, there are probably times when unneutralized acid contents of the stomach might reach them and cause irritation.

We do not believe that retention of material in the duodenum is common. In 18 consecutive cases, Case[5] observed that barium was retained for eleven hours. This we were unable to confirm since in the majority of our cases no retention could be demonstrated after six hours. A few of the moderate or larger diverticula in which the fundus was directed upward frequently collected air. It also must be remembered that portions of barium retained in the stomach may be intermittently propelled into the duodenum. The diverticula also may collect a portion of barium giving the impression of retention.

No classic symptomatology of diverticulosis has been detected nor are the symptoms of secondary disease clear cut. Almost invariably the literature indicates that disease in adjacent organs has to be ruled out first and that a diverticulum is implicated by exclusion. With an ulcer of the duodenum the classic symptoms of peptic ulcer appear and are improved by medical management. An unexplained source of gastrointestinal bleeding has been traced at times to a bleeding diverticulum. Carcinomatous changes have repercussions in adjacent organs and the whole body. Increase in the size of a diverticulum with constriction of the neck, foreign body incarceration, and the presence of parasites all may play a part. It is interesting to note that Chomel[6] in the first description of a supposed diverticulum described the presence of 22 gallstones.

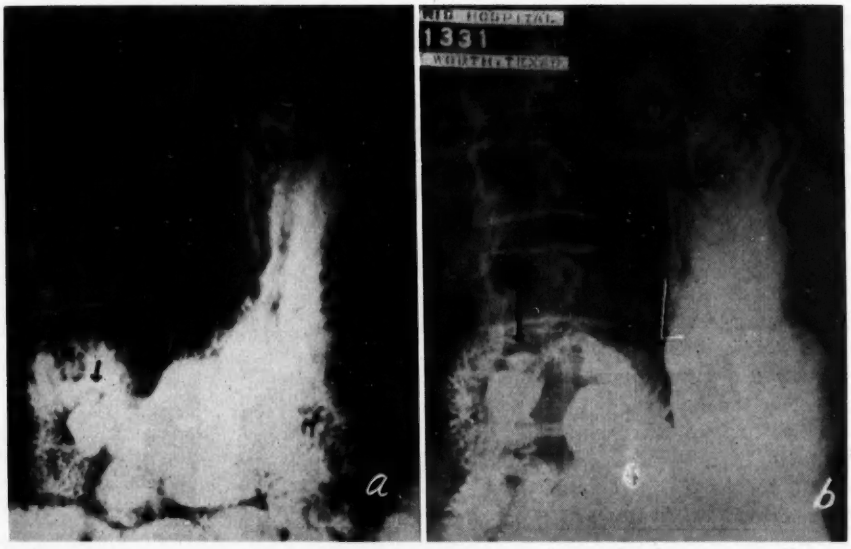

FIG. 4. Case 2. a. The arrow points to a defect interpreted as an ulcer. b. Six months later the defect resembles more closely a diverticulum.

Disturbances in adjacent organs such as disease of the bile duct, pancreatitis, carcinoma of the pancreas, or visceroptosis may produce trouble in otherwise benign diverticula by causing an obstruction. Conversely, diseased diverticula may produce profound changes in adjacent organs by occluding bile ducts or pancreatic ducts, and even by causing thrombosis of the superior mesenteric artery. It is said that perforation of a diseased diverticulum in the retroperitoneal spaces is generally fatal probably because of the surgeon's inability adequately to mobilize the structures and protect the pancreas.

A few cases of diseased diverticula from the literature might be cited. Weig[19] described a 4 mm. ulcer in a diverticulum occurring in a 77 year old man who had developed severe epigastric pain. Kinzer[12] reported an obstruction produced by a saccular structure covered by mucous membrane within the lumen of the descending limb of the duodenum which he considered to be an intraluminal inverted diverticulum.

Nash and Palmer[16] cited a defect in the second portion of the duodenum which was considered to be a diverticulum but which disappeared after therapy. We would like to mention a similar case.

CASE 2.—A 38 year old woman developed epigastric discomfort, had tarry stools four days later, and vomited coffee ground–like material. Gastrointestinal examination revealed a defect in the second portion of the duodenum which was thought to be an ulcer. Six months later after a good recovery on medical management reexamination revealed the presence of a diverticulum in this same location. Does this represent a diverticulum formed from a previous ulcer as some authors infer?

More and more instances of effective excision of duodenal diverticula are being reported. Although considered by some to be relatively difficult, such a procedure is definitely required should evidence of secondary disease be demonstrated. Patterson and Bromberg[18] enumerated 34 cases of diseased diverticula removed. Mahorner and Kisner[15] listed an additional 4 cases. The cases of Kinzer[12] might also be added. Surgeons are fairly consistent in requiring that any disease in adjacent organs be ruled out before the duodenum is considered the source of difficulty.

CONCLUSION

Four hundred radiologic gastrointestinal examinations revealed 22 cases of diverticulosis of the duodenum, a relatively high incidence in spite of limitations inherent in the mode of examination. The distribution of diverticula resembled that described in the literature with the greater number lying in the second portion of the duodenum. The higher incidence in patients older than 50 years of age was noted, as was emphasized by Grant.[10]

The presence of diverticula for the most part is best explained on the basis of inherent sites of weakness which lie about the vessels perforating the musculature and which are further weakened by aging. Although the greater number are asymptomatic, diverticula must nevertheless always be closely examined and considered since occasionally they have been shown to be the site of a secondary lesion.

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ABSTRACT OF DISCUSSION

DR. V. H. SHOULTZ, Abilene: The question I am asked by the clinician is, "What is the significance of the diverticulum in this gastrointestinal study?" The literature indicates that from 2 to 10 per cent of those demonstrated cause symptoms. I am of the opinion that 2 per cent is probably a high figure; at least I have not recognized symptoms in 2 per cent of cases of diverticulosis of the duodenum which I could say were definitely due to a diverticulum.

However, the symptoms produced are worth remembering. In order of frequency they are:

1. Pain, which occurs in 85 per cent of the symptomatic cases. This may be mild epigastric distress or severe dull aching pain; it often occurs during or after eating.
2. Nausea and vomiting.
3. Diarrhea due to pancreatic disease or to putrefaction in the pocket.
4. A feeling of distention in the epigastrium.
5. Tenderness in the right lower epigastrium.
6. Febrile reaction.
7. Gastrointestinal hemorrhage.

These symptoms may be brought on by inflammation or distention of the sac, inflammation of surrounding tissue, or pressure on surrounding organs. The complications of these disorders have been well covered by Drs. O'Bannon and Grunow.

Radiologically speaking, diverticula are considered signifi-

cant when symptoms cannot be explained by other disease and/or when on roentgen examination there is localized tenderness over the diverticulum; changes such as a persistent fleck are demonstrated in the mucosa; mucosal changes are seen in the adjacent duodenum; irritability in the duodenum about the lesion is demonstrated; or stasis in the duodenum or in the diverticulum is present.

With these symptoms and radiographic signs in mind, the examiner should be able to decide whether a diverticulum needs surgical intervention or medical treatment.

LESS COMMON MANIFESTATIONS OF ULCERATIVE COLITIS

CAROLINE W. ROWE, M.D., Galveston, Texas

WHEN the term chronic ulcerative colitis is used, one immediately visualizes a fibrotic, shortened, "pipe-stem" colon with complete loss of the normal haustral markings. So accustomed have physicians become to thinking of this type of lesion that many are prone to overlook the other appearances of this disease, and in his practice a radiologist may find many a "doubting Thomas" who will be reluctant to accept his interpretation of other findings in a barium enema study as chronic ulcerative colitis. This was brought to my attention recently in the handling of 2 interesting cases which were excellent examples of the less common forms of ulcerative colitis.

The formation of islands of nonulcerated hypertrophic mucosa resulting in a pseudopolyposis is one of the appearances of chronic ulcerative colitis. Fistulas are commonly encountered in ulcerative colitis in the rectum and sigmoid colon, but I have found only 2 reports or accounts of a gastrocolic fistula such as I wish to discuss momentarily. In surveying the literature I have found the incidence of involvement of the terminal ileum to be as high as 28 per cent and yet I find this fact is not generally known.

I have 2 cases with which I should like to illustrate these points.

CASE 1.—L. T., a 50 year old white woman, was admitted to John Sealy Hospital on June 25, 1949, with a chief complaint of fistulas, weakness, and weight loss. For the past three years the patient had had diarrhea consisting of three to seven thin stools per day. She frequently passed pus and occasionally had bleeding from the bowels. She had lost 80 pounds in the past year. Two years previously, a rectal fistula had been lanced and had continued to drain. At the time of admission she had 10 to 12 fistulas throughout the perineum from which pus exuded.

Roentgen-ray examination revealed a markedly irregular contour of the colon with multiple filling defects in the lumen of the bowel. There was a long fistulous tract encountered at the splenic flexure, and as this was observed under the fluoroscope, the tract was seen to lead into the stomach (fig. 1a). The entire length of the colon was thought to be somewhat shortened. The filling defects were better visualized on the next examination, which was a double contrast study of the colon (fig. 1b). The findings were interpreted as pseudopolyps, gastrocolic fistulas, and rectal fistulas secondary to chronic ulcerative colitis.

An examination three months later revealed the gastrocolic fistula to be almost closed, there being only a small tract leading half way to the stomach. Conservative therapy was continued.

In 1952, the patient was readmitted to the hospital after an exacerbation of the colitis. Reexamination revealed some improvement in the appearance of the colon, but there were still ulcerations and pseudopolyps (fig. 1c and d). A total colectomy was performed. The specimen showed no evidence of the old gastrocolic fistula, but ulcerations, pseudopolyps, and much scar tissue were evident (fig. 2).

Let us consider the mechanism of the development of such a picture. The first pathologic changes of ulcerative colitis are hyperemia and edema of the mucosa, followed by shallow erosions. As the inflammatory process continues, the edema and ulcerations become more marked. The mucosal surface may be covered with an adherent inflammatory membrane in places. Then the ulcers begin to coalesce, and denudation of the mucosal surface occurs. In many cases a totally irregular mucosal surface results. Polypoid and proliferative hyperplastic tissue occurs in some areas, a smooth, denuded surface in others. Eventually there is replacement of the muscular fibers by inflammatory tissue, and contraction of scar tissue occurs. If the colon were smoothly denuded, one would expect the scar contraction to result in the shortened pipe-stem colon. If the process were irregular and allowed the formation of hyperplastic tissue, pseudopolyps would occur and the contraction of scar tissue would serve to emphasize the projection of the polypoid areas into the lumen of the bowel.

When ulcerations penetrate the wall of the colon, they tend to form small abscesses. These abscesses may involve adjacent bowel or other structures in their walls, and with the attempt to drain themselves the abscesses may open into adjoining structures and produce fistulas.

From the Department of Radiology, University of Texas Medical Branch.

Read before the Section on Radiology, Texas Medical Association, Annual Session, Houston, April 28, 1953.

The second case illustrates the third point I wish to emphasize.

CASE 2.—J. G., a 52 year old white man, was admitted to John Sealy Hospital on December 7, 1951, with a chief complaint of having had diarrhea since 1950. He had begun to have cramping abdominal pains recently. In February, 1951, he had had a perineal fistula lanced; it had continued to drain.

Roentgen-ray examination when the patient came to John Sealy Hospital revealed extensive involvement of the colon with ulcerations and pseudopolyps. In addition there was involvement of the ileum for nearly 2 feet (fig. 3a).

The patient was treated conservatively and discharged improved. He was readmitted on July 18, 1952, with an exacerbation. At this time he had 4 perineal fistulas. Barium enema study showed improvement in the appearance of the colon, but there was still evidence of disease (fig. 3b). The postevacuation roentgenogram was particularly helpful in determining this fact as it demonstrated nicely the change of the mucosal folds to a more parallel arrangement produced by the hypertrophic changes which had been noted previously (fig. 3c). The terminal ileum could not be filled on this examination, and as its condition is of prognostic importance, a motor meal was used to obtain adequate visualization of the small bowel. It appeared unchanged (fig. 3d).

On September 12, 1952, a colectomy was performed and the involved ileum resected. Long areas of coalescent ulcers were found and many pseudopolyps. The right side of the colon was relatively free of disease. The ileum was ulcerated and contracted for 2 feet (fig. 4).

Involvement of the ileum is said to occur in 20 to 28 per cent of cases of ulcerative colitis. The process is the same as that taking place in the colon, but there is usually a lesser degree of narrowing of the lumen and shortening as is seen in the colon. There is a loss

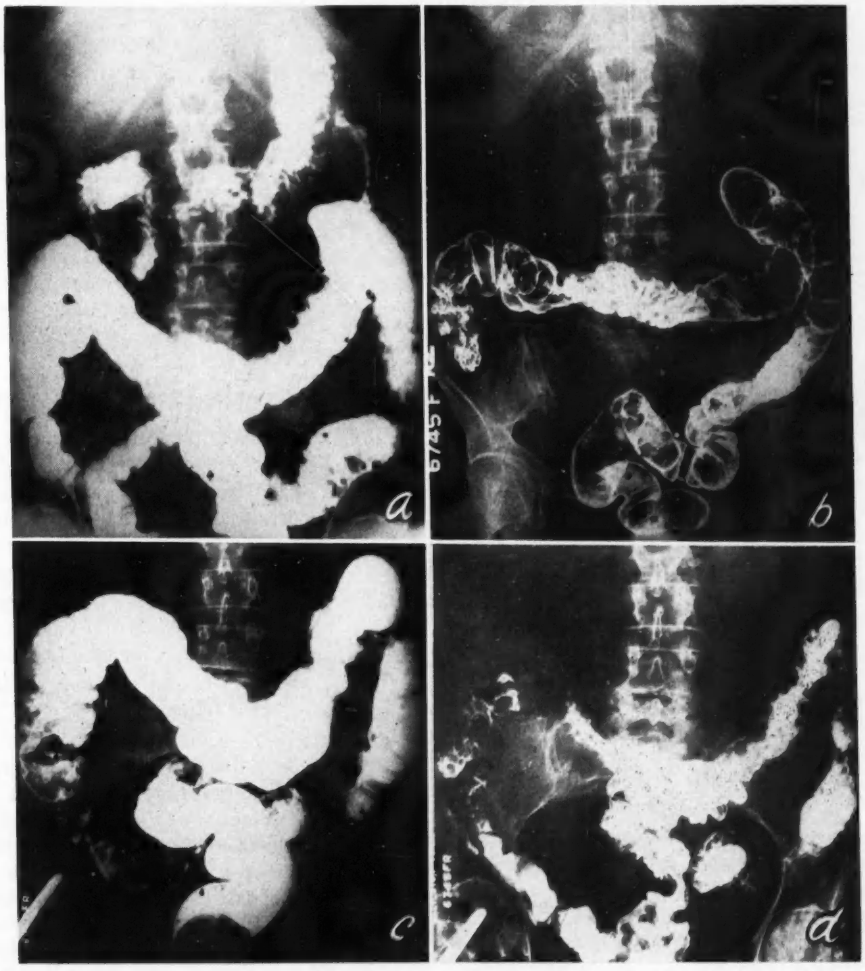

FIG. 1. Case 1. a. A roentgenogram showing marked irregularity of the contour of the colon with some shortening and multiple filling defects in the lumen. A long fistulous tract leads into the stomach.
b. A double contrast study demonstrates multiple pseudopolyps.
c. A roentgenogram showing that ulcerations and pseudopolyps remained after conservative treatment.
d. A postevacuation roentgenogram made at the same time as *c* showing the pseudopolyps.

of the markings of the valvulae conniventes and the outline of the ileum is serrated because of small ulcerations. The length of the involvement may be from a few centimeters to several feet.

FIG. 2. Case 1. A photograph of the removed colon confirms the roentgen-ray findings.

DISCUSSION

The majority of the reports in the recent literature concerning ulcerative colitis have dealt with the treatment of these cases. There are few articles on the roentgen appearance and especially on that of these less common manifestations.

The formation of pseudopolyps has been mentioned for many years but for the most part only casually or as inclusions in statistical analyses. It is of interest to note that in 1721 Menzel described a case of generalized inflammation of the colon with a number of wartlike excrescences. This specimen was obtained from a soldier who had died of chronic bloody diarrhea. In 1861 Virchow named this condition colitis polyposa. In 1915 Hewitt and Howard[5] published an article on ulcerative colitis with polyps. In1942 Brown, Buie, and Weber[4] at Mayo Clinic found 41 cases which did not conform with the usual picture of ulcerative colitis. These authors described the usual roentgen-ray appearance as general contraction, narrowing and shortening of the colon, destructive changes in the intestinal wall and mucous membrane, and diminished flexibility and mobility. In the cases under consideration in their paper, there were hyperplastic and productive elements. A patchy, irregular distribution of the ulcerative and hyperplastic process was found. Since that time there have been no articles in the literature dealing with this appearance as such. Statistical studies show the occurrence to range from 10 to 15 per cent. Surely this interesting feature of this disease deserves more emphasis.

The gastrocolic fistula is of interest because of its rarity, at least as the paucity of reports in the literature would indicate. The fistula in case 1 was unusually long, and it was interesting to watch its spontaneous closure.

The involvement of the ileum should be emphasized, I believe, because of its prognostic importance. There was one excellent article dealing with this in 1949 by McCready, Bargen, Dockerty, and Waugh[6] from Mayo Clinic. They pointed out that the disease of the ileum was the single most important factor for the high mortality rate and failure of operative procedures such as ileostomy in these cases. Therefore, it is important that the ileum be studied adequately, and since it is not uncommon for the diseased ileum to fail to fill in the barium enema study, it is necessary to be persistent and to demonstrate it one way or another.

DIFFERENTIAL DIAGNOSIS

When cases such as these are encountered, there are few conditions to be considered in the differential diagnosis. Amebic colitis may assume the appearance of the polypoid type of ulcerative colitis and may be indistinguishable roentgenographically. The discovery of the etiologic agent in amebic cases should not be difficult, and the differentiation is up to the clinician and the laboratory technician. The type of ulcerative colitis showing the contraction, fibrosis, and shortening offers additional possibilities for a differentiated diagnosis which I shall not discuss.

When the ileum is involved, there is more cause for speculation. In 1932, Crohn described a necrotizing and cicatrizing inflammation confined to the terminal ileum which he termed regional ileitis. The original description emphasized diarrhea, abdominal pain, fever, weight loss, symptoms of partial obstruction, and formation of fistulas from the ileum. There was no evidence of involvement of the cecum. Later, the same pathologic and clinical features were reported in other segments of the small intestine, and the original report describing the failure of the lesion to pass the ileocecal valve into the colon had to be revised. The dis-

ease in the colon does not differ pathologically from that seen in ordinary idiopathic colitis. Therefore, it is sometimes a question of whether the disease began in the ileum and later involved the colon or vice versa. Bockus has expressed the opinion that the rectosigmoid area is not involved when the colon is diseased secondary to regional ileitis. This belief is an aid in differentiation as the rectosigmoid area is thought to be the first site of involvement in chronic ulcerative colitis. The conditions to be differentiated from regional ileitis are tuberculosis and, rarely, amebic infection. However, when there is such marked involvement in the colon as in these cases, the other possibilities are remote.

The same is true in considering the differential diagnosis of the gastrocolic fistula. If seen without the generalized involvement of the colon, one would think first of carcinoma. Carcinoma does occur in the presence of ulcerative colitis (some say in 5 per cent of the cases), but there should be characteristic findings to distinguish cancer. Tuberculosis, fungus disease, and simple ulcer are other rarer causes of gastrocolic fistula.

FIG. 3. Case 2. a. A roentgenogram demonstrating ulcerations and pseudopolyps as well as involvement of the terminal ileum for 2 feet.
b. Barium enema indicated improvement after treatment, but evidence of disease is still seen in the roentgenogram.
c. A postevacuation roentgenogram made at the same time as *b* shows hypertrophic changes causing the mucosal markings to lie in a more parallel arrangement.
d. The terminal ileum is demonstrated by means of a motor meal, and the diseased ileum is again noted.

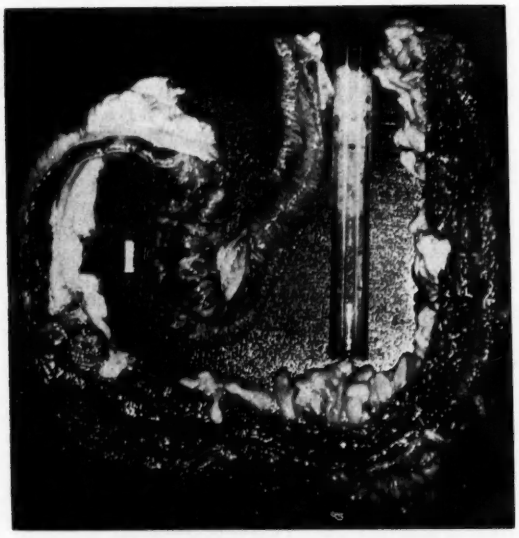

FIG. 4. Case 2. Photograph of the specimen after resection of the colon and 2 feet of ileum showing multiple pseudopolyps and long coalescent ulcers. The ileum is ulcerated and contracted.

SUMMARY

The less common manifestations of chronic ulcerative colitis are discussed. The formation of pseudopolyps occurs in 10 to 15 per cent of the cases, involvement of the terminal ileum in 20 to 28 per cent, and gastrocolic fistulas rarely. These appearances are interesting radiographically, of prognostic as well as diagnostic importance, and deserve more emphasis than has been given them in the past.

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ABSTRACT OF DISCUSSION

DR. HERMAN C. SEHESTED, Fort Worth: Dr. Rowe has shown three unusual features of ulcerative colitis, or rather of advanced ulcerative colitis. Pseudopolyposis is a well recognized and generally accepted manifestation of advanced ulcerative colitis.

Gastrocolic fistula, however, is an unusual complication of ulcerative colitis. Dr. Rowe pointed out carefully in discussing differential diagnosis that ulcerative colitis is not the most common cause of gastrocolic fistula, and when we see a gastrocolic fistula, we should not think first of ulcerative colitis because we have heard of her case.

The third unusual feature of ulcerative colitis which she has shown is involvement of the terminal ileum. She mentioned that this feature had particular prognostic significance. It has been noted that the terminal ileum is involved with a particularly fulminating type of ulcerative colitis and often in right-sided cases of ulcerative colitis in which the sigmoid is not implicated. Her case, however, did show involvement of the sigmoid.

She mentioned particularly the difficulty in filling the terminal ileum. The first essential in filling the terminal ileum is to have the colon well prepared, preferably with castor oil. Maneuvers to fill the terminal ileum should include having the patient lie prone and then lean to the right. Of course, in some cases it cannot be filled no matter what the maneuver. It might be well to state that it is not always desirable to fill the terminal ileum. To be sure, the only way of having definite proof the cecum is filled, that is, that the entire colon has been filled, is to demonstrate filling either of the terminal ileum or the appendix. However, routine filling of the terminal ileum or especially overfilling of the terminal ileum will cover up more lesions than it uncovers by obscuring the sigmoid. Again, let me emphasize that we should know what we are attempting to demonstrate and individualize the examination accordingly so that we will come up with the information we want rather than simply carry out a routine procedure.

Tennessee Postgraduate Courses

Scheduled for 1954 by the University of Tennessee College of Medicine, in cooperation with the John Gaston Hospital and Le Bonheur Children's Hospital, Memphis, are the following postgraduate courses: pediatrics, March 10-12; abdominal surgery, March 31-April 2; obstetrics and gynecology, May 19-21; trauma, July 28-30; management of simple fractures, September 15-17; and clinical electrocardiography, October 6-8.

Further information may be obtained from the University's Postgraduate Department, 4 South Dunlap, Memphis.

Medical Tour of Europe

Texas physicians have been invited to join members of the California Medical Association in a tour of Europe, April 5 to May 5, which will include visits to France, England, Italy, Holland, Belgium, Germany, and Switzerland and will offer opportunities to attend scientific meetings and meet medical leaders in several cities en route. Arrangements have been made for wives of physicians to attend style shows by Parisian couturiers and to participate in special entertainment.

Interested Texans should write immediately to the California Medical Association, 450 Sutter Street, San Francisco 8.

MANAGEMENT OF COMMON ANORECTAL CONDITIONS

With Special Emphasis on Prevention of Pain

R. HARVEY BELL, M. D., F.A.C.S., Palestine, Texas

THE patient with an anorectal condition requiring treatment is apprehensive if not actually afraid, and anything that will reduce or prevent his pain is greatly appreciated by him. The physician should not fail to spend sufficient time with the patient before examination or operation to reassure him and to explain that much of the pain in the anal region is caused by spasm of the sphincter muscles. The patient also can be told that he will have relief from pain or discomfort in the same degree that he is able to accomplish relaxation of the sphincters. In cases in which the patient cannot relax, less painful examinations can be made if the physician uses an anesthetic lubricating jelly instead of a plain one. A satisfactory anesthetic lubricating jelly is 5 per cent Intracaine in potassium yttrium or a similar jelly.

In the presence of a tight or spastic anus, the physician should use his little finger instead of his index finger for the digital examination. Examination of a fistulous tract can be done painlessly if the physician injects the tract with a 2.5 per cent Intracaine solution using a medicine dropper with a round bulb end instead of a sharp tip and if he leaves a small cotton tipped applicator dipped in the same solution in the tract for five to ten minutes before passing a probe into it. A good procedure is to prepare the patient for the examination, inject the tract with the anesthetic as described, and leave to examine another patient. When the physician returns, the tract will have become anesthetized and can be examined readily.

External Thrombotic Hemorrhoids.—External thrombotic hemorrhoids are common. If the patient is seen the first day or two after the clot forms and becomes firm, much later discomfort can be spared him. The lesion should be washed gently with soap and water using cotton rather than gauze to wipe the area. No shaving should be done. The region may be washed with a Zephiran Chloride solution, 1:1,000 strength. One stick of a small hypodermic needle is all that is necessary to anesthetize the mass with a procaine solution. An elliptic incision is made over the hemorrhoid and the clot removed completely. The bleeding point and cut edges are then desiccated with a uniterminal electric needle such as a Hyfrecator, and an anesthetic ointment such as Surfacaine is applied on a pledget of cotton. No further ointment dressings ordinarily are used since in a draining wound such as this quicker healing and less discomfort is had if wet dressings are used. My preference is to have the patient cleanse the wound several times a day with a 1:1,000 Zephiran Chloride solution and apply a small moist sponge or piece of cotton to the anus when there is discomfort or when the dressing drops off. If the physician does not have an electric needle, he may touch the skin edges lightly with fuming nitric acid with equally good pain control.

Internal and External Hemorrhoids.—Markedly less pain and associated bladder neck spasm will follow an operation for removal of internal and external hemorrhoids if the bleeding is stopped by using an electrocoagulating needle rather than by tying the bleeding points. The need for postoperative catheterization, therefore, will be much less. If the physician does not desiccate the skin edges, he should touch them lightly with nitric acid for pain prevention. Another procedure to lessen pain following hemorrhoidectomy is to have the patient soak in a tub of warm water for twenty to thirty minutes several times daily beginning the day after operation. If this plan is followed, the patient will require many less hypodermic injections to relieve pain and may not require any. It is not unusual for my patients to require no narcotics following hemorrhoidectomy, and all have standing orders for morphine when they have pain that disturbs their rest. Soaking in a tub is soothing and relaxing, and nearly all patients find it of much value during their convalescence.

Postoperative gas pains can be prevented in most patients by disturbing the bowels as little as possible prior to surgery and feeding the patient normally and fully immediately following surgery. The empty bowel forms the gas. No enema should be given the day of the operation; if one is given at all, it should be the day before operation and of small quantity using plain water. It is my usual practice not to give any preoperative enemas.

A piece of gauze, which can be removed before the patient leaves the operating room following surgery, should be placed in the rectum at the beginning of the operation to absorb blood. This will leave no

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blood clot masses in the lower rectum to cause discomfort later. No gauze or rubber tissue should be left in the anus after operation to act as a drain or plug. Hemostasis should be complete before concluding the operation so that such agents are unnecessary.

The first bowel action following surgery will not be uncomfortable if a solution of 3 teaspoonsful of Hydrocil or Metamucil in a quart of warm water is injected into the bowel and allowed to remain until the patient has the urge for the bowels to act. The physician should use a well lubricated catheter and pass it himself rather than leave the procedure to an orderly.

Cryptitis and Papillitis.—Cryptitis and papillitis are managed similarly. Both require surgical removal of the lesions if they do not clear up promptly under conservative management of hot sitz baths. Treatment consists of injecting with a procaine solution, excising, and touching the wound and skin edges with either the desiccating needle or nitric acid. The wounds are kept clean with a Zephiran Chloride solution until healing is complete.

Fissure in Ano.—The fissure in ano is an elongated or slitlike ulcer in the lining of the anal skin at or above the anorectal line. It is characterized by paroxysmal pain usually brought on by defecation. Several methods of treatment may effect a cure, but excision of the ulcer accompanied by division of the superficial bundle of fibers of the external sphincter muscle, all under anesthesia, offers practically 100 per cent cure. Division of the sphincter adds materially to the postoperative comfort of the patient since it lessens the anal spasm. The skin edges should be touched with nitric acid or uniterminal current should be used as described previously. Postoperative care includes hot sitz baths. The operation may be done in the office and the patient allowed to go home for his sitz baths if the physician considers him a suitable patient for home care; otherwise, he should be hospitalized for a day or so.

Fistula in Ano.—Fistula in ano usually requires the complete removal of the fistulous tract to eradicate the condition. The tract or tracts usually pass external to the external sphincter muscle or between it and the internal sphincter so that division of the external sphincter muscle only is required. Care should be taken to divide the muscle at right angle to the direction of the muscle fibers and to divide it only in one place to preserve anal continence. The after care of the wound is very important. Packs should be removed entirely the first time they are disturbed, usually at about forty-eight hours postoperatively, and rarely replaced. Sitz baths are begun the day following operation and are continued two to four a day until the wound has healed. Pocketing is prevented by gently wiping the wound out to its bottom as often as necessary and by irrigating the wound with a 1:2,000 Zephiran Chloride solution. After a few days this becomes a painless procedure. A small wet Zephiran Chloride sponge dressing is placed over the wound and changed as often as necessary to maintain comfort. A Furacin dressing can be used for this wound. Neither Zephiran Chloride nor Furacin is irritating, but occasionally a patient is allergic to Furacin.

Pruritus Ani.—Pruritus ani is a condition in which many factors may play a part. Volumes have been written about its management. The physician must consider systemic causes, allergies, and local causes. Hemorrhoids, fissures, and fistulas are causes at times chiefly because of their irritating discharges. It is safe to say that in a large percentage of cases the offending agent is an irritant leaking from the anal canal; the neutralization or removal of this irritant will relieve the condition.

In milder cases simple cleansing with cotton wipes rather than paper and witch hazel applications on cotton swabs often will effect a cure. Alcohol injections, using 95 per cent strength, with a ¼ inch needle at ¼ inch intervals around the anus will cure some cases. The injections must be carried out under spinal, caudal, or general anesthesia since local anesthesia will dilute the alcohol. In severe cases I have found the best treatment to be an undercutting operation, usually clover leaf type. Then Oxycel or Gelfoam is placed beneath the skin and left until it has absorbed. All local conditions should be attended to prior to this part of the operation and all hypertrophied skin trimmed away smoothly.

Polyps.—Polyps require removal and fulguration of their bases. The physician must be careful not to tent the area and burn a hole in the bowel wall in this fulguration. Subsequent frequent periodic examinations should be carried out to be sure that there is no recurrence of the growth.

Anorectal Abscess.—Anorectal abscesses cause great pain and discomfort. In general the treatment consists of immediate wide incision and drainage. The incision should be anteroposterior or parallel to the anal slit; it should be made beyond the outermost fibers of the external sphincter muscle but as near the point of fluctuation as possible. Usually it is better to make the incision elliptic or triangular and large enough to assure adequate drainage. Much pain can be spared the patient after the operation if the abscess cavity is swabbed with nitric acid after opening it. Hot compresses and tub soaks will afford additional relief.

Proctalgia Fugax.—Proctalgia fugax is a well defined symptom complex of obscure etiology and pa-

thology. The pain is irregular and intermittent and appears to be 2 or 3 inches above the anal outlet. It is apparently a spasm of the internal sphincter muscle. There are possibly different trigger mechanisms in different persons affected with the condition. Sexual excitement seems to cause it in some persons at times; infection, vasospasm, venous stasis, allergy, and other factors cause it in others. The pain has been described as boring, gnawing, cramping, aching, and expanding. It usually does not last longer than fifteen to twenty minutes and may be less. Hot sitz baths, warm water enemas, firm application of pressure, and the assumption of various positions such as the knee-chest are pain relievers in some persons. It now has been found by several observers that nitroglycerine soluble tablets, grains 1/100 to 1/200, stop the attacks or modify them at once.

Carcinoma.—Carcinoma of the anus is mentioned here only to say that most cases of this condition require abdominoperineal resection because the lymphatic drainage of the anus spreads the disease. Lymphatic vessels below the anorectal line drain into the inguinal chain of glands, and those above this line drain into the median lumbar glands, which are high and far away from the site of the lesion. More than 77 per cent of cancer in the rectum and sigmoid colon can be felt by digital examination, and there is little excuse for missing cancer in this region.

SUMMARY

A plea is made for the physician to spend more time to reassure the patient with an anorectal condition and to explain to him more about the mechanics of the pain of his condition.

Some practical points regarding the lessening of pain or discomfort in examination and treatment of such common anorectal conditions as hemorrhoids, cryptitis, fissure in ano, fistula in ano, pruritus ani, polyps, anorectal abscesses, and proctalgia fugax are given.

Use of the uniterminal desiccating needle and of nitric acid applications is advocated in certain conditions.

ABSTRACT OF DISCUSSION

DR. HOLLAND T. JACKSON, Fort Worth: It is a well known fact that the patient with an anorectal condition is probably the most apprehensive of any patient with a common condition that we, as physicians, encounter. I certainly agree with Dr. Bell that reassurance on the part of the physician is a great aid for this patient. One of the most appreciative patients we encounter is the patient with thrombotic hemorrhoids. Simple removal of the thrombus usually gives the patient complete relief.

In the postoperative care of hemorrhoidectomies the sitz bath is probably one of the most valuable procedures. The idea of maintaining a full diet and amply full bowel to avoid stress is certainly good. Bulk laxatives by mouth are much better than enemas and, I think, better than the suggested enema as outlined by the essayist. In the management of cryptitis as well as fissure in ano, it has been my experience that usually some associated disease probably has necessitated hospitalization.

In fissure a complete cure is difficult unless the sphincter is divided. Pruritus ani continues as a challenge to the medical profession. It is important that all possible organic etiologic factors be considered and removed. It has been my experience that, in most of these instances, pruritus ani continues. The psychogenic factor in these cases never can be overlooked; it must be considered and the patient reassured as well as treated for the organic condition. After all apparent organic phenomena have been controlled and as a last resort before the surgical undermining operation, roentgen-ray therapy is a good agent for trial.

I have nothing to add in regard to the treatment of proctalgia fugax, but I do wish to reemphasize the importance of digital examination of all patients and certainly the importance of the sigmoidoscope for any patient who had the slightest suspicious history of a possible neoplasm of the lower bowel or rectum.

It is my opinion that it is not necessary to treat the wound edges with some desiccating agent but to establish adequate drainage and handle the tissues gently. This will cause far less pain than adding another pathologic process to the operative procedure. I wish also to stress the importance of cold compresses for twenty-four to thirty-six hours following the surgery. Cold gives far greater relief than warm applications during these early hours.

Regarding catheterization, despite what the doctor does, at least one catheterization is necessary in as many as 50 per cent of all male patients. And, again, let me stress the importance of biopsy of all suspicious lesions. It is important that the surgeon see that all tissue removed goes to a pathologist; then the pathologist should examine all the tissue submitted to him. Many times the tissue has gone to the pathologist but when he found it to be from a hemorrhoidectomy or something of that type, he has merely looked at the tissue grossly and reported it hemorrhoidal tissue. This type of attitude should be avoided.

FACTOR U COMPLICATES BLOOD TRANSFUSIONS

A new common factor in blood, designated as factor U, which causes blood to clump and complicate transfusion, is described by Dr. A. S. Wiener, Dr. L. J. Unger, and E. B. Gordon, all of Brooklyn, in the December 19 *Journal of the American Medical Association.*

Tests of the blood of a Negro patient who died following a blood transfusion for bleeding peptic ulcer and anemia and of the blood of the donors indicated that the patient's serum contained an abnormal antibody that caused the blood cells of the donors to clump together upon transfusion. Further tests with the serum on a series of other blood specimens showed them all to be incompatible. This indicated the presence in a high frequency of the population of a hitherto unknown factor which was lacking in the patient's blood, the report points out.

In additional tests on 690 Caucasoid and 425 Negroid persons, all of the Caucasoids were found to have the new factor U in their blood, whereas 4 of the Negroids were found lacking in it.

CASE REPORTS

MASSIVE SMALL BOWEL RESECTION IN POSTGASTRECTOMY PATIENTS

Report of 2 Cases

ELVIN L. SHELTON, JR., M.D., F.A.C.S., and M. H. BLAINE, M.D.,
Houston, Texas

EXTENSIVE small bowel resection is by no means a rare operation. In 1880, Koeberly removed 205 cm. of small bowel from a 22 year old woman.[8] In 1912, Flint[6] found more than 58 cases reported in which more than 200 cm. had been resected. Today there are many such case reports, but we were able to find only 2 instances in which even short-term survival had followed resection of the small bowel in a patient who previously had had a gastrectomy. Weckesser, Chinn, Scott, and Price[19] reported 1 such case; the patient lived for nine months with 24 to 30 inches of small bowel between the remaining portion of his stomach and his ileocecal valve.[19] This patient died apparently of inanition. Johnston and Reagan[10] recently reported a similar case in which the patient had extensive enterectomy three and one-half months after subtotal gastrectomy. Approximately 17.5 cm. of small bowel remained distal to the gastrojejunostomy. Inanition and reactivation of an old pulmonary tuberculous condition in the patient caused death five months after his second operation.

Since the combination of extensive enterectomy and gastrectomy in the same patient is so unusual, we wish to report 2 such cases.

CASE REPORTS

CASE 1.—The patient was a poorly nourished Negro man who appeared ten years older than the stated age of 58. A subtotal gastrectomy with a Hofmeister-type retrocolic gastrojejunostomy was performed on the patient October 2, 1950, because of almost complete pyloric obstruction secondary to a duodenal ulcer of approximately twenty years' duration.

On January 9, 1951, three months after his operation, the patient was seen for a complaint of mild periumbilical, cramping pain which subsided within a few hours.

On April 5, the patient again returned to the hospital. For two or three weeks he had noted dizziness and weakness following meals. Lying down would give the patient some relief, especially if he was able to vomit or "belch up" a small amount of gastric contents. On the evening of admission he had belched up about a cupful of "thin black blood." His bowel habits had remained normal.

From the Department of Surgery, Baylor University College of Medicine, and the Veterans Administration Hospital.

Read before the Section on Surgery, Texas Medical Association, Annual Session, Houston, April 29, 1953.

The patient appeared critically ill and was able to give only a fair history. He was stuporous, cold, and sweating and had a weak pulse of 89 per minute, a temperature of 98 F., and a blood pressure of 80/0 mm. of mercury. His abdomen was moderately distended but only slightly tender throughout. Peristalsis was hypoactive.

Laboratory studies were normal except for a leukocytosis of 18,100.

Flat and upright roentgenograms of the abdomen showed dilated loops of small intestine containing fluid levels, suggesting intestinal obstruction.

The patient was given 3,000 cc. of blood during the next ten hours. His general condition improved, but his abdomen became tenderer. He was scheduled for an exploratory laparotomy with a preoperative diagnosis of intestinal obstruction secondary to adhesions.

A right paramedian incision was made, and when the peritoneum was opened, many loops of markedly distended, black, gangrenous small bowel were extruded. Approximately 400 cc. of malodorous, thin, brownish fluid was aspirated from the peritoneal cavity. It was noted that the entire small bowel and its mesentery had rotated approximately 360 degrees in a counterclockwise direction. The volvulus was reduced, revealing no adhesive band or other abnormality which might have encouraged the volvulus. All the small bowel except the 26 inches just distal to the gastrojejunostomy and the 2 inches proximal to the ileocecal valve was gangrenous (fig. 1a). A resection of the nonviable bowel and a two-layer, end-to-end entero-enterostomy was accomplished without delay, and the incision was closed. The patient received 2,500 cc. of blood during the operation, and his condition remained remarkably stable.

The immediate postoperative course of the patient was satisfactory. By the ninth postoperative day he was taking a high carbohydrate, medium protein, low fat diet with frequent small feedings, and it became obvious that he would be a nutritional problem. He was having five to seven semiliquid stools daily, the stools being of a greasy, foamy nature and containing undigested food. The urge to defecate followed shortly the ingestion of food. Carmine red given by mouth was detectable in the stool seventeen minutes later. Barium by mouth was seen by fluoroscopy to reach the ileocecal region in three minutes.

The patient's weight dropped from 128 pounds on admission to the hospital on April 5 to 110 pounds on May 20. He then gradually gained to 118 pounds and stabilized at that weight within a month, a rather typical course for this type of patient.

Bismuth subcarbonate and paregoric were given frequently in an effort to lessen bowel motility and decrease the diarrhea. Ammonium chloride and calcium lactate were given

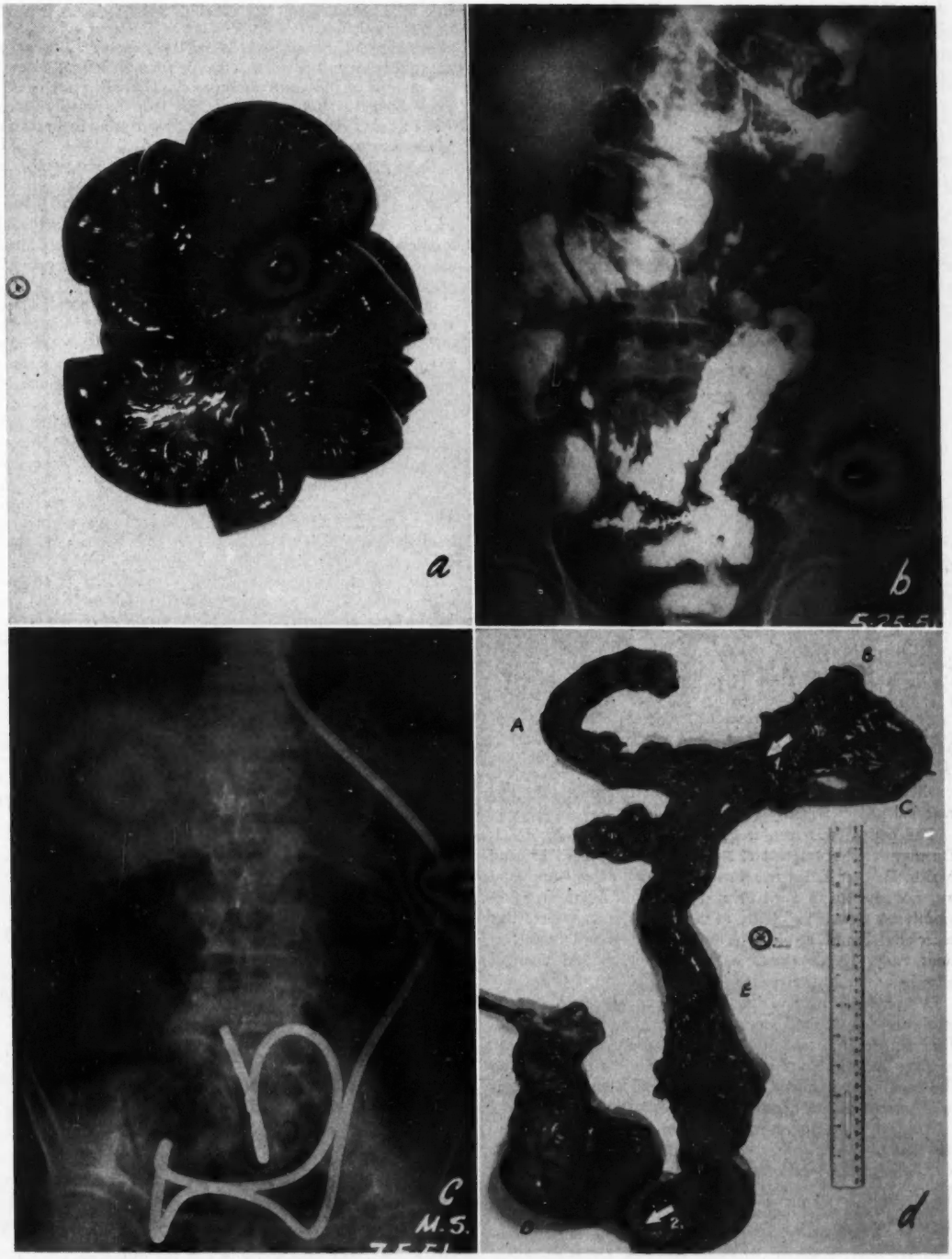

FIG. 1. Case 1. a. Gangrenous small bowel resected April 6, 1951.

b. A barium study May 25 after small bowel resection shows some barium remaining in the stomach; the entire extent of the small intestine can be outlined vaguely.

c. A roentgenogram made sometime later shows the distal end of the Miller-Abbott tube apparently at the ileocecal valve. Repeated efforts failed to advance the tube farther.

d. Autopsy specimen showing (*A*) duodenum, (*B*) short esophageal segment, (*C*) entire stomach, (*D*) cecum, and (*E*) entire length of small bowel. Arrow 1 points to a perforated ulcer, and arrow 2 indicates the site of an old enteroenterostomy.

to facilitate the absorption and utilization of calcium. Ascorbic acid, crude liver extract, vitamin B complex, and vitamin K were administered parenterally to forestall vitamin deficiencies and anemia. Repeated blood chemistry examinations were done, and at no time prior to the patient's temporary discharge from the hospital July 15, 1951, did the blood urea nitrogen, total blood cholesterol, blood sugar, total serum protein, serum albumin-globulin ratio, serum chlorides, serum amylase, blood carbon dioxide combining power, blood calcium, serum sodium, or serum potassium show anything but normal variation. A gastrointestinal series

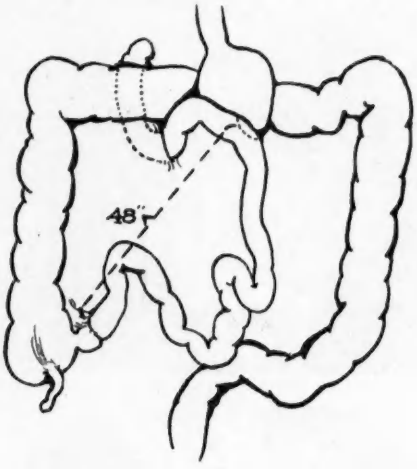

FIG. 2. Case 2. Diagram of the reconstructed gastrointestinal tract following massive small bowel resection.

on May 25 showed filling of the entire intestinal tract and revealed no abnormality (fig. 1b and c).

The patient was seen frequently until August 20, 1951. On that date he weighed 121 pounds and appeared in good health. He then failed to return for routine examination and was not seen again until February 9, 1952. Eight days previously his bowels had failed to move, and he considered this especially significant since he usually had several bowel actions daily. He developed a mild distention and vomited once before admission to the hospital.

On physical examination the patient was found to be markedly dehydrated, poorly nourished, and chronically ill. His temperature was 100 F.; the pulse feeble, 120 per minute; and the blood pressure 80/0 mm. of mercury. The abdomen was distended, tympanitic, and silent. There was mild, generalized abdominal tenderness without rigidity.

A roentgenogram of the abdomen was not remarkable. The leukocyte count was 9,100 with a normal differential. The hemoglobin was 9.7 Gm. with an erythrocyte count of 3,200,000.

The unusual findings were a serum protein level of 3.1 Gm. per 100 cc., a serum chloride level of 86 milliequivalents per liter, a serum potassium level of 1.4 milliequivalents per liter, a serum sodium level of 133 milliequivalents per liter, and a blood calcium level of 2.9 milliequivalents per liter.

A vigorous but unsuccessful attempt was made to correct the fluid and electrolyte imbalance, but the patient's condition grew progressively worse, and he died on the fifth day in the hospital.

Postmortem examination revealed a generalized, purulent peritonitis secondary to a large perforated jejunal ulcer at the margin of the gastrojejunostomy. The entire segment of small bowel excluding the afferent loop measured 70 cm. (28 inches), and no compensatory hypertrophy had occurred as has been noted in other cases (fig. 1d).

CASE 2.—The second case has one or two interesting differences from the first. The patient was a much younger and healthier man from the beginning. He had a high subtotal gastrectomy with a Hofmeister-type antecolic gastrojejunostomy performed on January 31, 1952, for a chronic duodenal ulcer that had perforated on three separate occasions in the preceding ten years.

On May 4, 1952, the patient returned to the hospital with a note from his family physician stating that the patient had suffered several attacks of what appeared to be incomplete intestinal obstruction. The night before admission an attack more severe than usual had begun and had not relented. He had vomited several times.

Physical examination revealed a well developed but thin patient in good general condition but in moderate distress. The abdomen was tender throughout but not distended. There was definite rigidity.

There was a leukocytosis of 19,850 white cells per cubic millimeter. All other laboratory findings were normal. A roentgenogram showed small bowel distention with fluid levels and no free air.

The patient was operated upon, the findings at surgery being similar to the preceding case. Approximately 120 cm. (48 inches) of jejunum distal to the gastrojejunostomy was viable and only 5 cm. (2 inches) of ileum just proximal to the ileocecal valve was viable. An end-to-end enteroenterostomy was accomplished after quick resection of the gangrenous bowel (fig. 2). Many adhesions secondary to the previous operations were noted.

This patient had a gratifying convalescence. By May 10, he was passing flatus. When given a full diet, he had approximately ten stools a day. He ate well and gained 4 pounds in one week. He was discharged in good condition May 26.

A gastrointestinal series on August 22 showed unusually slow progression of the head of the column of barium. At four hours all the column had reached the cecum (fig. 3). It is likely that the patient had multiple adhesions which slowed the passage of barium, perhaps accounting for his good nutritional status despite the minimal amount of small intestine remaining.

The hemogram and blood chemistry results have remained normal. The patient's weight has maintained at about 130 pounds compared with his usual weight of 160 pounds.

DISCUSSION

It appears definite now that our second patient will not succumb from the effects of his extensive enterectomy. He never presented the serious nutritional problem which we expected from our experience with the first patient. There may be several reasons for this. He was twenty years younger and in better physical condition prior to his operation than the patient of case 1. He was decidedly more cooperative and has followed dietary restrictions well. Very likely his meals at home have been more nutritious. One also might conclude that the 48 inches of small bowel exceeds slightly the minimum amount necessary to maintain

life whereas the 28 inches remaining in the first patient was perhaps short of the minimum requirement.

Where is this critical point? It is interesting to note that in 1912, Flint[6] was trying to answer the same question. He said, "In these days of aggressive surgery, it is important to know the limits of resection of various organs and tissues. . . ."[6] After extensive experiments on dogs, he estimated that 50 per cent of the small intestine could be resected and good health be maintained. Prioleau[17] in 1944 agreed with that estimation. Perhaps the required amount of functioning small bowel is somewhat less than 50 per cent, but Meyer,[13] Johnston and associates,[10] and others[1, 11, 13, 17] have noted that although survival is possible after more extensive resections, the patient loses weight which he never regains and does not have perfect health thereafter.

It has been interesting to speculate how much the previous gastrectomy affected our 2 patients. The small intestine is the most important part of the gastrointestinal tract from the standpoint of physiologic function.[11] As we know, the small intestine can assume the function of the stomach or colon when necessary, but for adequate digestion it needs assistance, and certainly in these 2 patients it would have been desirable to have a large normal stomach with a pyloric sphincter and a duodenum that had not been short-circuited. Under such conditions the ingested food would have been churned, partially digested, and acidified. This process would have initiated the breakdown of all foods and prepared them for further digestion and absorption in the acid medium.[12] Without the normal stomach and the sphincter, the food dropped almost immediately into the alkaline jejunum, progressed rapidly, and in case 1 had reached the colon in only a few minutes. It might be assumed that this patient would be living now had he not lost most of his stomach earlier.

Flint's experimental work on dogs in 1912 indicated that, following extensive enterectomy, a compensatory process consisting of a hypertrophy as well as hyperplasia of the remaining portion of the small intestine occurred. It seemed probable to him that "in favorable cases approximately the original epithelial area of the intestine is restored by the hypertrophic process."[6] Similarly, Coleman and Bennet[4] believed that postoperatively the rate of absorption proximal to the resection becomes twice the normal rate. The slight weight gain after an initial loss in case 1 suggests that the patient probably did benefit from increased absorption. Autopsy findings, however, showed a distinct failure of the remaining jejunum to increase in diameter or length. It has not been possible yet to confirm any changes which may have occurred in case 2, but the patient's good general condition at present possibly may be attributed to such changes.

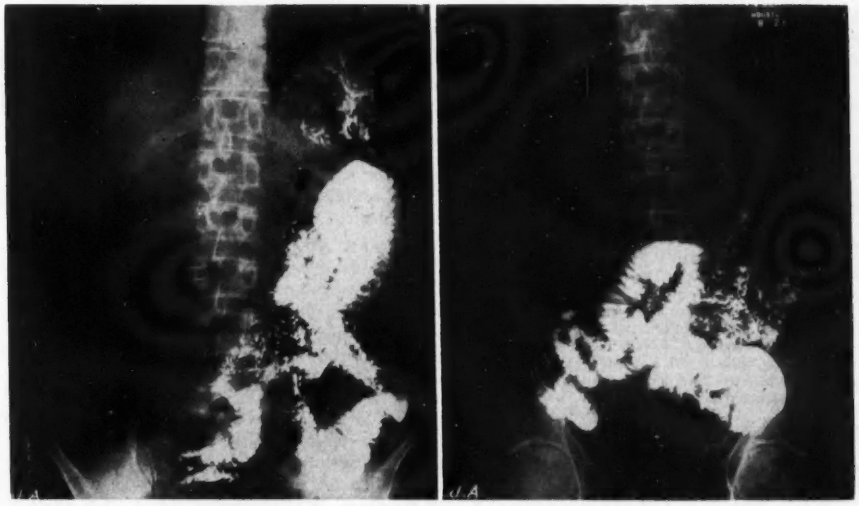

FIG. 3. Case 2. Gastrointestinal series three months after small bowel resection. *Left:* Roentgenogram made at one hour shows barium in the stomach and proximal one-third of the small bowel. *Right:* Roentgenogram at two hours shows barium in the cecum and faintly throughout the entire extent of the small bowel. The slow progression of barium is not explained.

SUMMARY

Extensive enterectomies in postgastrectomy patients must be rare. A careful search of the medical literature revealed reports of only 2 previous cases.

We report 2 cases of our own, 1 with a ten month survival and the other being alive and well almost twelve months postoperatively. The autopsy findings in case 1 are presented.

The probable effect of the previous gastrectomy on the nutrition of the 2 patients is discussed.

Our patients conform to the pattern of other similar cases reported regarding persistently frequent soft stools, a lower weight level plateau, and a tendency to improve gradually with time. However, autopsy findings in case 1 did not show compensatory hypertrophy or hyperplasia of the remaining small bowel which others have felt occurred.

ADDENDUM

As of January 1, 1954, the second patient is living and well.

The authors wish to express their gratitude to Mrs. Ella S. Breckenridge and the Medical Illustration Laboratory, Veterans Administration Hospital, Houston, for the preparation of the illustrations in this article.

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Dr. Blaine, Veterans Administration Center, Temple, Texas.

ABSTRACT OF DISCUSSION

DR. DENTON A. COOLEY, Houston: In 1951, I reported a case of a 52 year old housewife who six years previously had undergone gastric resection with inadvertent gastroileostomy.* Diagnosis of the condition had not been made previously although multiple barium studies had been done. Not until a Miller-Abbott tube was passed from the gastric pouch directly into the colon was the radiologic appearance explained. Subsequent laparotomy revealed that the gastrointestinal anastomosis had been done 18 inches from the ileocecal junction. A short bowel syndrome, similar to those reported by Dr. Shelton, was thus available for study after a prolonged period of progressive deterioration of the patient.

The most striking feature in my case was the appearance of spontaneous fractures involving the left clavicle, right radius, and multiple ribs. Serum calcium measured 8.1 mg. per 100 cc., which in the presence of a total serum protein level of 4.0 Gm. per 100 cc. was well above tetanic levels. Serum phosphorus was 1.8 mg. per 100 cc., and the alkaline phosphate was 29.4 Bodansky units. Thus the chemical pattern was similar to that of juvenile rickets or adult osteomalacia. The fact that the serum phosphorus increased to 3.5 mg. per 100 cc. with massive doses of calciferol indicated that a deficit of vitamin D, a fat soluble vitamin, was the cause of the osseous decalcification. Soon after correction of the gastroileostomy, the fractures healed, and the patient has completely recovered. Perhaps Dr. Shelton should give his patient a larger dose of the fat soluble vitamins.

DR. ALANDO J. BALLANTYNE, Houston: The problem of maintenance of nutrition after resection of various portions of the gastrointestinal tract is an interesting study in applied physiology. Studies such as those reported in Dr. Shelton's paper indicate that our knowledge of gastrointestinal physiology is far from complete, particularly in relation to the amount of compensation that can occur in the face of extensive resections. Furthermore, it would seem that inferences from animal studies regarding the amount of intestine that can be resected with survival cannot be directly applied to human material. Some animal studies also tend to show that resection of the jejunum is tolerated better than resection of the ileum, but Dr. Shelton reports that reasonable nutrition is possible after resection of the entire ileum, most of the jejunum, and even the right colon.

After extensive subtotal gastric resections, gastrointestinal physiology is altered, and there may be nutritional disturbances resulting therefrom. The most apparent alteration is the loss of much of the reservoir function of the stomach with a resultant more rapid filling of the jejunum with material which has not been processed by the stomach. The material reaching the jejunum does not have what is considered to be an optimum hydrogen ion concentration, osmotic concentration, or fluidity. These changes and the absence of the normal controls of gastric emptying lead to an increased hurry of the intestinal contents in the upper jejunum and in some instances through the entire small bowel. Deficiencies in absorption may result, particularly in the absorption of fat, and subclinical steatorrhea is common after subtotal gastrectomy. There are also perhaps deficiencies in absorption of iron and vitamins resulting from this derangement in physiology, but usually these deficiencies are less apparent clinically.

When a considerable loss of absorptive surface resulting from massive intestinal resection is added to the defects produced by subtotal gastrectomy, a situation in which nutri-

**Cooley, D. A., and Hartmann, R. C.: Inadvertent Gastro-Ileostomy: Successful Operative Correction Six Years After Gastrectomy, Bull. Johns Hopkins Hosp. 89:133-142 (Aug.) 1951.*

tional problems are likely to develop is present. With only a small segment of small bowel remaining, absorption of carbohydrate is ordinarily good, protein is absorbed fairly well, and fat is absorbed poorly. Chlorides, sodium, and potassium seem to be absorbed reasonably well. The absorption of adequate amounts of calcium is more difficult. Calcium is absorbed chiefly from the upper small intestine where its rate af absorption is influenced chiefly by the hydrogen ion concentration, the amount of phosphates and fat in the diet, and the presence of vitamin D. In patients who have undergone gastrectomy and have minimal small bowel remaining and who are losing large amounts of fatty acids, conditions for calcium absorption are about as poor as could be imagined. It is interesting that in Dr. Shelton's first patient during the final admission to the hospital the blood calcium was 5.8 mg. per 100 cc. and yet clinical tetany was not present. Had vomiting been prolonged sufficiently to result in alkalosis, tetany certainly should have occurred. The other findings of marked hypoproteinemia and anemia are fairly characteristic of the findings reported in the literature in the terminal phases of these nutritional problems.

What can be done to improve the nutrition of these patients? A diet rich in carbohydrate, medium in protein, and low in fat given in frequent feedings seems to be tolerated best. The use of Tweens-80 to facilitate the absorption of fat has met with indifferent success. Hexamethonium bromide taken before each meal has been said to facilitate the absorption of fat in some patients after gastrectomy, but I have seen no reports of its use after massive small bowel resection. Theoretically, the administration of synthetic diets containing amino acids should result in better utilization of ingested protein; but in the reports with which I am familiar, there has been a better utilization percentagewise of whole protein, and patients will not follow a synthetic diet long enough for extensive studies.

When a surgeon is faced with the problem of resecting the small intestine in such quantity that the remaining absorptive surface seems inadequate to sustain life, he can be comforted by the fact, pointed out by Drs. Shelton and Blaine, that other surgeons have living patients who have had most of the stomach as well as most of the small bowel removed and yet maintain a reasonable state of nutrition. We can hope that in the future new facts may be uncovered which will lead to an improvement in the nutritional state.

Ulcerative Colitis with Sarcoid-Like Lesions Treated by Total Colectomy

REPORT OF A CASE

JOHN A. HART, M.D., F.A.C.S., Beaumont, Texas

THERE are many forms of ulcerative colitis, but the term is best used to denote a clinico-pathologic syndrome. This syndrome may develop as a result of infection by one or more of several bacteria or animal parasites.

Thromboulcerative colitis accounts for about 66 per cent of such cases. It often appears in the second or third decade of life and is characterized by periods of exacerbation and remission. However, the tendency is to progression and extension. It usually begins in the rectum or lower colon and tends to spread upward and involve the entire colon and even the terminal ileum. Perirectal abscesses and ulcers frequently are complications.

The pathologic changes as described by Bargen[1] begin in the wall of the colon as a thrombosis of the capillaries. Edema, miliary abscesses, and ulcers appear as the mucosa is secondarily involved. Fibrosis and uniform strictures follow and result in pseudopolyposis. In the acute phase fever and all the symptoms of intense toxemia are present. Severe diarrhea with passage of purulent hemorrhagic exudate ensues. Death frequently occurs as the result of the fulminating toxemia or from perforation or peritonitis.

The case herein reported followed this pattern and differs only in the pathologic findings in the resected specimen.

CASE REPORT

J. M., an only child, adopted, family history unknown, developed signs of rickets at the age of 6 months. He slept at only short intervals as a baby. He developed nervous tics at the age of 3 years. He was extremely nervous in school and made very poor grades.

In 1947, at the age of 17, the patient developed a chronic cough, began losing weight, and suffered from frequent loose stools. He became lethargic and began to run a low grade fever. No definite diagnosis was made, but he was treated with long courses of sulfonamides, penicillin, and streptomycin. The condition progressed and he began passing purulent and hemorrhagic stools. A diagnosis of ulcerative colitis was made in 1949. The patient was sent through two excellent clinics in neighboring medical centers where repeated cultures, acid-fast stains, and animal inoculation revealed no causative organisms. However, it was suspected by physicians at one of the clinics that the cause was a fungus infection. Subsequently the patient developed multiple perianal abscesses and ulcers. These were operated upon but resisted all treatment. Multiple tender subcutaneous nodules appeared in the lower extremities. The patient's weight, normally about 140 pounds, declined to around 90 pounds. In 1950 he was given Aureomycin and improved rapidly. The fever and diarrhea subsided, the perianal ulcers healed, and normal weight was regained. However, the stools remained semisoft and liquid. The patient remained in fairly good health until 1952, when all symptoms re-

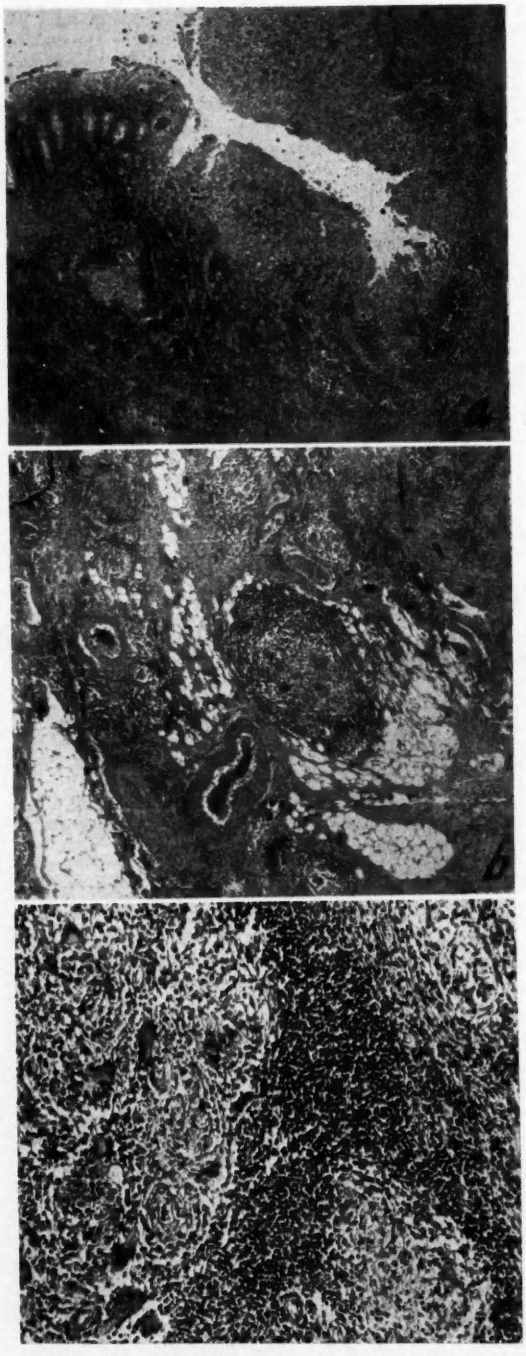

FIG. 1a. Photomicrograph of a section through an ulcerating crypt in a field showing the nonspecific chronic picture usually observed in chronic ulcerative colitis. x 26.

b. Section showing a tuberculoid granulomatous focus occupying an island of adipose tissue and located immediately outside the serosa of the colon. Note the giant cells. x 26.

c. High power view of a granulomatous area similar to *b*. A typical noncaseating tubercle is shown.

turned. Multiple perianal ulcers and abscesses recurred. There was no improvement with Aureomycin or sulfa drugs. Again body weight declined to 90 pounds.

June 21, 1952, a Cattell[2] type of ileostomy was done under light Pentothal and local anesthesia. The postoperative course was stormy and manifested by repeated attacks of gastric dilatation and obstructive symptoms with little drainage through the ileostomy tube. These signs of obstruction were relieved when a colon tube was passed about 20 cm. up the ileum through the ileostomy. The double-barrel ileostomy as described by Cattell creates a pocket between the two loops of the ileum and the anterior abdominal wall through which the ileum can herniate. This complication was thought to be the cause of the obstruction.

The skin for about 12 cm. around the ileostomy was covered with a thick, sticky paste, as advised by Ladd and Gross,[3] which prevented all irritation. The wound healed cleanly, and twelve days postoperatively measurements were taken for a Koenig Rutzen ileostomy bag. This was applied three weeks after ileostomy. If the ileostomy opening projects 1½ inches above the skin, the intestinal contents will be discharged directly into the bag, which is glued to the skin and cannot slip.

The patient felt well and gained about 15 pounds in weight but continued to have diarrhea with passage of a purulent hemorrhagic exudate. There was no evidence of healing of the perianal ulcers.

The patient was rehospitalized and given transfusions. Ten grams of Sulfasuxidine was instilled in the colon through the distal end of the ileum each day for five days prior to colectomy. On January 5, 1953, with spinal anesthesia, through a long left paramedian incision, the distal end of the terminal ileum was excised from the abdominal wall and total colectomy was performed in one stage. A wide incision around the anus was necessary to excise the deep perineal ulcers.

Pathologic Report.—Dr. H. W. Neidhardt, the pathologist who examined the surgical specimen, diagnosed the condition as chronic ulcerative colitis with an unusual superimposed sarcoid-like type of lesion and an appendix showing granulomatous inflammation.

The entire colon showed extensive ulcerations of the mucosa so that in most of the areas there were typical "islands" of mucosa (pseudopolyps). The transverse and descending portion of the colon showed particularly severe involvement with beginning fibrosis of the wall. The cecum showed the least degree of involvement and the small portion of terminal ileum no involvement. The transverse mesocolon showed innumerable enlarged lymph nodes. No areas were suggestive of malignant changes.

Numerous sections taken through the colon microscopically showed extensive ulceration of the mucosa. These ulcers were filled with granulation tissue containing a great many macrophages and newly formed capillaries. There was a dense infiltration with lymphocytes and numerous foreign body type, multinucleated giant cells which are often associated with typical epithelioid noncaseating tubercles such as are seen in sarcoidosis. The granulomatous foci were usually evident in the submucosal part of the colon, but also appeared sometimes as deep as or within the muscularis. The serosa, however, was never involved. Sections through regional lymph nodes suggested sarcoidosis. Sections through the appendix were striking in that the submucosal lymphoid tissue was replete with this same type of tubercle, but without evidence of ulceration. The lesions at the mucocutaneous junction were very severe and the ulcerations unusually deep. Sections through the ileum

showed nothing remarkable. Special stains (periodic-Schiff) were done to demonstrate fungi; however, no fungi were observed. It was postulated that the multiple granulomatous lesions may have been a result of a superimposed fungus infection upon what was otherwise a classical example of chronic ulcerative colitis. The sarcoid-like picture encountered throughout this specimen was difficult to explain. Acid-fast stains were negative.

Postoperative Course.—The postoperative course was smooth. Active peristalsis was noted in the second day with passage of frequent liquid stools. The patient was taking liquid diet on the third day and allowed to be up. The wound healed by primary union. The patient was discharged on the fourteenth postoperative day on a full diet.

Nine months after the colectomy, the patient was doing manual labor, had gained 40 pounds in weight, and had a soft to firm stool once daily.

DISCUSSION

To my knowledge no other cases of chronic ulcerative colitis have displayed this singular pathologic lesion and one may reasonably wonder if the administration of antibiotics over a prolonged period would favor a fungus infection which would account for the granulomatous tissue reaction observed here.

Sommers and others[5] have failed to confirm the contention of some authors[4] that an important histologic alteration in chronic ulcerative colitis is a "basement membrane deficiency" supposedly demonstrated by using the periodic-Schiff reaction.

Since the periodic-Schiff reaction was used in the study of the present case, the sections were reviewed with special attention to basement membrane alteration. No conclusive evidence of such changes could be found.

SUMMARY

A case of chronic ulcerative colitis presenting sarcoid-like lesions in a constitutionally inferior patient was treated by total colectomy. The obstruction from internal herniation which can follow the Cattell type of ileostomy was relieved by high insertion of a colon tube. The Koenig Rutzen bag has robbed ileostomy of its horrors.

REFERENCES

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2. Cattell, R. B.: New Type of Ileostomy for Chronic Ulcerative Colitis, S. Clin. North America *19*:629-635 (June) 1939.

3. Ladd, W. E., and Gross, R. E.: Abdominal Surgery of Infancy and Childhood, Philadelphia, W. B. Saunders, 1941.

4. Levine, M. D.; Kirsner, J. B.; and Klotz, A. P.: New Concept of Pathogenesis of Ulcerative Colitis, Science *114*:552-553 (Nov. 23) 1951.

5. Sommers, S. C., and others: Basement Membranes in Chronic Intestinal Diseases, Lab. Investigation, Internat. A. Med. Museums *2*:223-226 (May-June) 1953.

NEWS

COMING MEETINGS AND CLINICS

Texas Medical Association, San Antonio, May 3-5, 1954. Dr. George Turner, El Paso, Pres.; Mr. N. C. Forrester, 1801 Lamar Blvd., Austin, Executive Secy.

American Medical Association, San Francisco, June 21-25, 1954. Dr. Edward J. McCormick, Toledo, Ohio, Pres.; Dr. George F. Lull, 535 North Dearborn St., Chicago 10, Secy.

NATIONAL AND REGIONAL

American Academy of Allergy, Houston, Feb. 1-3, 1954. Dr. Ben Z. Rappaport, Chicago, Pres.; Dr. Alan G. Cazort, 1425 West 7th St., Little Rock, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 4-9, 1954. Dr. Fred D. Weidman, Philadelphia, Pres.; Dr. John E. Rauschkolb, P. O. Box 6565, Cleveland 1, Secy.

American Academy of General Practice, Cleveland, March 22-25, 1954. Dr. U. R. Bryner, Salt Lake City, Pres.; Mr. Mac F. Cahal, 406 W. 34th St., Kansas City 2, Executive Secy.

American Academy of Obstetrics and Gynecology. Dr. Robert A. Kimbrough, Jr., Philadelphia, Pres.; Dr. C. Paul Hodgkinson, 116 S. Michigan Blvd., Chicago 3, Secy.

American Academy of Ophthalmology and Otolaryngology. Dr. Walter H. Theobald, Chicago, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 4-7, 1954. Dr. Roger L. J. Kennedy, Rochester, Minn., Pres.; Dr. E. H. Christopherson, 610 Church St., Evanston, Ill., Secy.

American Association for Thoracic Surgery, Montreal, Canada, May 3-5, 1954. Dr. Emile F. Holman, San Francisco, Pres.; Dr. Paul C. Samson, 2938 McClure St., Oakland 9, Calif., Secy.

American Association of Genito-Urinary Surgeons, Shawnee-on Delaware, Pa., May 26-28, 1954. Dr. Vincent J. O'Conor, Chicago, Pres.; Dr. Norris J. Heckel, 122 S. Michigan Ave., Chicago 3, Secy.

American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Hot Springs, Va., Sept. 9-11, 1954. Dr. Herbert F. Schmitz, Chicago, Pres.; Dr. F. R. Lock, Bowman Gray School, Winston-Salem, N. C., Secy.

American Cancer Society. Dr. Guy Aud, Louisville, Ky., Pres.; Mr. M. R. Runyon, 47 Beaver St., New York, Executive Vice-Pres.

American College of Allergists, Miami Beach, April 5-10, 1954. Dr. M. Murray Peshkin, New York, Pres.; Dr. Fred W. Wittich, 423 La Salle Medical Bldg., Minneapolis 2, Secy.

American College of Chest Physicians, San Francisco, June 17-20, 1954. Dr. Alvis E. Greer, Houston, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut St., Chicago 11, Executive Secy.

American College of Physicians, Chicago, April 5-9, 1954. Dr. Leroy H. Sloan, Chicago, Pres.; Mr. E. R. Loveland, 4200 Pine St., Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 5, 1954. Dr. John D. Camp, Los Angeles, Pres.; Mr. W. C. Stronach, 20 N. Wacker Drive, Chicago 6, Executive Secy.

American College of Surgeons, Atlantic City, N. J., Nov. 14-18, 1954. Dr. Fred W. Rankin, Lexington, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie St., Chicago 11, Secy.

American Congress of Physical Medicine and Rehabilitation, Washington, D. C., Sept. 6-11, 1954. Dr. William B. Snow, New York, Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Dermatological Association, White Sulphur Springs, W. Va., April 13-17, 1954. Dr. Louis A. Brunsting, Rochester, Minn., Pres.; Dr. J. Lamar Callaway, Duke Hospital, Durham, N. C., Secy.

American Gastro-Enterological Association, San Francisco, June 18-19, 1954. Dr. J. M. Ruffin, Durham, N. C., Pres.; Dr. H. Marvin Pollard, 1313 E. Ann St., Ann Arbor, Mich., Secy.

American Gynecological Society, Hot Springs, Va., May 20-22, 1954. Dr. Richard W. TeLinde, Baltimore, Pres.; Dr. John I. Brewer, 104 S. Michigan Ave., Chicago, Secy.

American Heart Association, Chicago, April 1-4, 1954. Dr. Robert L. King, Seattle, Pres.; Dr. William H. Bunn, 44 E. 23d St., New York 10, Secy.

American Hospital Association, Chicago, Sept. 13-16, 1954. Mr. Ritz E. Heerman, Los Angeles, Pres.; Mr. George P. Bugbee, 18 E. Division St., Chicago, Executive Secy.

American Laryngological, Rhinological, and Otological Society, Boston, May 25-27, 1954. Dr. LeRoy A. Schall, Boston, Pres.; Dr. C. S. Nash, 277 Alexander St., Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, N. J., June 14-16, 1954. Dr. Roland P. Mackay, Chicago, Pres.; Dr. H. Houston Merritt, 710 W. 168th St., New York 32, Secy.

American Ophthalmological Society, Glacier Park, Mont., June 16-18, 1954. Dr. William L. Benedict, Rochester, Minn., Pres.; Dr. M. C. Wheeler, 30 W. 59th St., New York 19, Secy.

American Orthopedic Association, Bretton Woods, N. H., June 6-9, 1954. Dr. A. R. Shands, Jr., Wilmington, Del., Pres.; Dr. George O. Eaton, 4 E. Madison St., Baltimore 2, Secy.

American Pediatric Society, Buck Hill Falls, Pa., May 3-5, 1954. Dr. Rustin McIntosh, New York, Pres.; Dr. A. C. McGuinness, 237 Medical Laboratory, University of Pennsylvania, Philadelphia 46, Secy.

American Proctologic Society, Los Angeles, June 2-5, 1954. Dr. Wendell Green, Toledo, Ohio, Pres.; Dr. Stuart T. Ross, 131 Fulton Ave., Hempstead, N. Y., Secy.

American Psychiatric Association, St. Louis, May 3-7, 1954. Dr. Kenneth E. Appel, Philadelphia, Pres.; Dr. R. Finley Gayle, 6300 Three Chopt Rd., Richmond 21, Va., Secy.

American Public Health Association, Buffalo, N. Y., Oct. 11-15, 1954. Dr. Hugh R. Leavell, Boston, Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Cincinnati, Oct. 25-30, 1954. Dr. Ralph T. Knight, Minneapolis, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph St., Chicago, Secy.

American Society of Clinical Pathologists, Washington, D. C., Sept. 6, 1954. Dr. John R. Schenken, Omaha, Pres.; Dr. Clyde G. Culberson, Indiana University School of Medicine, Indianapolis, Secy.

American Surgical Association, Cleveland, April, 1954. Dr. Howard C. Naffziger, San Francisco, Pres.; Dr. R. Kennedy Gilchrist, 59 East Madison St., Chicago 3, Secy.

American Urological Association, New York, May 31-June 3, 1954. Dr. J. A. Campbell Colston, Baltimore, Md., Pres.; Dr. C. H. deT. Shivers, 121 S. Illinois Ave., Atlantic City, N. J., Secy.

Association of American Physicians and Surgeons, Jackson, Miss., April 1-3, 1954. Dr. Thomas G. Goldsmith, Greenville, S. C., Pres.; Mr. Harry E. Northam, 360 N. Michigan Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 7-10, 1954. Dr. William R. Lovelace, Albuquerque, N. M., Pres.; Dr. Karl Meyer, 1516 Lake Shore Drive, Chicago, Secy.

National Tuberculosis Association, Atlantic City, N. J., May 17-21, 1954. Mr. Mark H. Harrington, Denver, Pres.; Mr. Kemp D. Battle, 1790 Broadway, New York 19, Secy.

Radiological Society of North America. Dr. Ira H. Lockwood, Kansas City, Mo., Pres.; Dr. D. S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, St. Louis, Nov. 8-11, 1954. Dr. Alphonse McMahon, St. Louis, Pres.; Mr. C. P. Loranz, 1020 Empire Bldg., Birmingham 3, Ala., Secy.

Southern Psychiatric Association, Louisville, October, 1954. Dr. John D. Trawick, Louisville, Ky., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association. Dr. I. A. Bigger, Richmond, Va., Pres.; Dr. John C. Burch, 2112 West End Ave., Nashville 5, Tenn., Secy.

Southwest Allergy Forum, New Orleans, May 9-11, 1954. Dr. Henry D. Ogden, New Orleans, Pres.; Dr. Stanley Cohen, 1441 Delachaise St., New Orleans, Secy.

Southwest Regional Cancer Conference, Fort Worth, 1954. Dr. John L. Wallace, Box 1719, Fort Worth, Chm.

Southwestern Medical Association, El Paso, 1954. Dr. Willard W. Schuessler, El Paso, Pres.; Dr. Celso Stapp, 800 Montana, El Paso, Secy.

Southwestern Surgical Congress, Oklahoma City, Sept. 27-29, 1954. Dr. Philip B. Price, Salt Lake City, Pres.; Dr. C. R. Rountree, 1227 Classen, Oklahoma City 3, Secy.

Tri-State Medical Assembly, Fall, 1954. Dr. Joe D. Nichols, Atlanta, Pres.; Dr. Broox C. Garrett, 940 Margaret Pl., Shreveport, La., Secy.

United States-Mexico Border Public Health Association, Albuquerque, N. M., April 6-9, 1954. Mr. Richard F. Poston, San Francisco, Pres.; Dr. Sidney B. Clark, 314 U. S. Court House, El Paso, Secy.

STATE

Private Clinics and Hospitals Association of Texas. Dr. W. R. Swanson, Taylor, Pres.; Dr. John Dupree, Levelland, Secy.

Texas Academy of General Practice, Galveston, Sept. 9-11, 1954. Dr. C. Forrest Jorns, Houston, Pres.; Dr. Woodson W. Harris, 1410 Nickerson, Austin, Secy.

Texas Academy of Internal Medicine. Dr. Martin S. Buehler, Dallas, Pres.; Dr. George M. Jones, 1314 Medical Arts Bldg., Dallas, Secy. Meetings restricted to members.

Texas Air-Medics Association, San Antonio, May 2-3, 1954. Dr. George L. Gallaher, Harlingen, Pres.; Dr. J. S. Minnett, 2512 Welborn, Dallas, Secy.

Texas Association of Blood Banks, Abilene, Dec. 3-4, 1954. Dr. C. T. Ashworth, Fort Worth, Pres.; Miss Marjorie Saunders, 3500 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Waco, Feb. 19-20, 1954. Dr. D. D. Wall, San Angelo, Pres.; Dr. Carey Hiett, 815 Fifth Ave., Fort Worth, Secy.

Texas Chapter, American College of Chest Physicians, San Antonio, May 2, 1954. Dr. Henry H. Hoskins, San Antonio, Pres.; Dr. Walter C. Brown, 1733 S. Brownlee Blvd., Corpus Christi, Secy.

Texas Club of Internists. Dr. Joseph F. McVeigh, Fort Worth, Pres.; Dr. Charles Darnall, Capital National Bank Bldg., Austin, Secy.

Texas Dermatological Society, San Antonio, May 2, 1954. Dr. Maurice Barnes, Waco, Pres.; Dr. Thomas L. Shields, 1216 Pennsylvania Ave., Fort Worth, Secy.

Texas Diabetes Association, San Antonio, May 2, 1954. Dr. Raymond L. Gregory, Galveston, Pres.; Dr. Edmond K. Doak, 501 Hermann Professional Bldg., Houston, Secy.

Texas Division, American Cancer Society. Mr. Travis Wallace, Dallas, Pres.; Mr. J. Louis Neff, 1609 Colorado, Austin, Executive Director.

Texas Heart Association, San Antonio, May 3, 1954. Dr. Joseph McVeigh, Fort Worth, Pres.; Miss Roberta Miller, 412 Fidelity Union Life Bldg., 1511 Bryan St., Dallas, Executive Secy.

Texas Hospital Association, Houston, May 18-20, 1954. Mr. W. U. Paul, El Paso, Pres.; Mrs. Ruth Barnhart, 2210 Main St., Dallas, Secy.

Texas Neuropsychiatric Association, San Antonio, May 2, 1954. Dr. James Blair, San Antonio, Pres.; Dr. John L. Otto, John Sealy Hospital, Galveston, Secy.

Texas Orthopedic Association, San Antonio, May 3, 1954. Dr. Edward T. Smith, Houston, Pres.; Dr. Margaret Watkins, 3629 Fairmount St., Dallas, Secy.

Texas Pediatric Society, Fort Worth, October, 1954. Dr. Robert L. Moore, Dallas, Pres.; Dr. James N. Walker, 3616 Tulsa Way, Fort Worth, Secy.

Texas Proctologic Society, Houston, Feb. 27, 1954. Dr. Herbert T. Hayes, Houston, Pres.; Dr. John McGivney, 2202 Avenue L, Galveston, Secy.

Texas Public Health Association, Galveston, Feb. 14-17, 1954. Dr. Roy G. Reed, La Marque, Pres.; Mr. Earle W. Sudderth, Dallas County Health Department, Court House, Dallas, Executive Secy.

Texas Radiological Society, Houston. Dr. E. F. Lyon, Jr., San Antonio, Pres.; Dr. R. P. O'Bannon, 650 Fifth Ave., Fort Worth, Secy.

Texas Railway and Traumatic Surgical Association, San Antonio, May 3, 1954. Dr. William E. Crump, Wichita Falls, Pres.; Dr. W. D. Marrs, 306 Broadway, Fort Worth, Secy.

Texas Rheumatism Association. Dr. Alfred H. Harris, Dallas, Pres.; Dr. Charles H. Cornwell, Marlin, Secy.

Texas Society for Mental Health, Waco, March 4-6, 1954. Mrs. Frank Schoonover, Fort Worth, Pres.; Mrs. Elizabeth F. Gardner, 2504 Jarratt Ave., Austin 21, Executive Secy.

Texas Society of Anesthesiologists, San Antonio, May 2, 1954. Dr. James B. Robinett, Jr., Houston, Pres.; Dr. C. R. Allen, John Sealy Hospital, Galveston, Secy.

Texas Society of Gastroenterologists and Proctologists, San Antonio, May 3, 1954. Dr. Cecil O. Patterson, Dallas, Pres.; Dr. W. T. Arnold, 1402 Hermann Prof. Bldg., Houston, Secy.

Texas Society of Ophthalmology and Otolaryngology, San Antonio, Dec. 3-4, 1954. Dr. John L. Matthews, San Antonio, Pres.; Dr. Gatlin Mitchell, 1604 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Pathologists, San Antonio, May 3, 1954. Dr. John J. Andujar, Fort Worth, Pres.; Dr. Lloyd R. Hershberger, Shannon Memorial Hospital, San Angelo, Secy.

Texas Surgical Society, Waco, April 5-6, 1954. Dr. Dudley Jackson, Sr., San Antonio, Pres.; Dr. Albert W. Hartman, 414 Navarro St., San Antonio 5, Secy.

Texas Tuberculosis Association, Dallas, April 9-10, 1954. Dr. R. G. McCorkle, San Antonio, Pres.; Miss Pansy Nichols, 208 E. Ninth, Austin, Executive Secy.

Texas Urological Society, Fort Worth, Feb. 22, 1954. Dr. J. Reese Blundell, Houston, Pres.; Dr. Dolphus E. Compere, 1415 Pennsylvania Ave., Fort Worth, Secy.

DISTRICT

First District Society, Pecos, Feb. 12, 1954. Dr. John W. O'Donnell, Alpine, Pres.; Dr. H. D. Garrett, First National Bldg., El Paso, Secy.

Second District Society, Sweetwater, April 15, 1954. Dr. T. D. Young, Sweetwater, Pres.; Dr. Francis Hood, Sweetwater, Secy.

Third District Society, Amarillo, April 13, 1954. Dr. Robert A. Neblett, Canyon, Pres.; Dr. James T. Hall, 1626 Fifteenth St., Lubbock, Secy.

Fourth District Society, San Angelo, Fall, 1954. Dr. P. M. Wheelis, Brownwood, Pres.; Dr. James N. White, San Angelo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, July, 1954. Dr. Y. C. Smith, Sr., Corpus Christi, Pres.; Dr. Robert J. Sigler, 1126 Third Street, Corpus Christi, Secy.

Seventh District Society, Austin, Feb. 18, 1954. Dr. Benjamin Clary Bates, Austin, Pres.; Dr. William McLean, 4618 Burnet Road, Austin, Secy.

Eighth District Society. Dr. Howard Z. Fretz, Wharton, Pres.; Dr. George E. Glover, Jr., Victoria, Secy.

Ninth District Society, Brenham, March 25, 1954. Dr. George D. Bruce, Baytown, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, Secy.

Tenth District Medical Society. Dr. Edmund D. Jones, Beaumont, Pres.; Dr. O. W. Harris, Jr., Liberty, Secy.

Eleventh District Society, Crockett, Spring, 1954. Dr. John Dean, Crockett, Pres.; Dr. Marlin T. Braswell, Henderson, Secy.

Twelfth District Society, Corsicana, July 13, 1954. Dr. Neil Buie, Marlin, Pres.; Dr. Paul H. Mitchell, Corsicana, Secy.

Thirteenth District Society, Fort Worth, March 24, 1954. Dr. William E. Crump, Wichita Falls, Pres.; Dr. Robert D. Moreton, 815 Medical Arts Bldg., Fort Worth, Secy.

Fourteenth District Society, Denton, 1954. Dr. J. W. Atchison, Gainesville, Pres.; Dr. L. W. Johnston, 502 W. College St., Terrell, Secy.

Fifteenth District Society, Longview, April 20, 1954. Dr. Bain Leake, Gladewater, Pres.; Dr. George Tate, Longview, Secy.

CLINICS

Dallas Southern Clinical Society, Dallas, March 15-18, 1954. Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.

Central Texas Spring Clinic, Waco, April 7, 1954. Dr. Walter B. King, 2320 Columbus Ave., Waco, Secy.

International Medical Assembly of Southwest Texas, San Antonio, 1955. Dr. John M. Smith, Jr., 205 Camden St., San Antonio, Secy.

New Orleans Graduate Medical Assembly, New Orleans, March 8-11, 1954. Dr. Maurice E. St. Martin, Room 103, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference. Dr. C. H. Wilson, Wichita Falls, Chairman.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 25-28, 1954. Miss Alma F. O'Donnell, 512 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, July 19-21, 1954. Dr. Edward T. Smith, 906 Hermann Professional Bldg., Houston, Secy.

State Tumor Conference, Wichita Falls, March 31, 1954. Dr. Bailey R. Collins, 925½ Scott Street, Wichita Falls, Director.

BOARD EXAMINATIONS

Texas State Board of Examiners in Basic Sciences. Mrs. Betty Ratcliff, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

Texas State Board of Medical Examiners, Fort Worth, June 21-23, 1954. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

PERSONALS

"Experiences with the Palmer Open Reduction of Os Calcis Fractures" was the title of a paper presented by *Dr. Jack E. Maxfield* and *Dr. Frederick J. McDermott,* Wichita Falls, at the annual meeting of the American Academy of Orthopedic Surgeons January 23-28 in Chicago.

At the meeting of the American Academy of Obstetrics and Gynecology in Cincinnati on December 14, *Dr. William F. Mengert,* head of the Department of Obstetrics and Gynecology at Southwestern Medical School of the University of Texas, Dallas, was elected president-elect rather than president as reported in the January JOURNAL.

Dr. A. Ford Wolf, Temple, recently was elected secretary-treasurer of the allergy section of the Southern Medical Association.

Dr. William E. Morris was recently selected as the "Outstanding Young Man" in Corpus Christi for 1953.

A dinner was held in Jacksonville to honor *Dr. R. T. Travis* in November, on the eve of the formal open house for the new Nan Travis Memorial Hospital. Dr. Travis was presented with a gold engraved watch and a hat as well as the announcement that the Travis Clinic would sponsor an annual lecture in his honor.

A thirty-year service pin was awarded to *Dr. L. M. Cochran,* Temple, manager of the McCloskey Veterans Administration Center, during the employees' incentive awards program in October. The pin was presented by *Dr. C. R. Miller,* manager of the Veterans Administration Hospital at Marlin and a lifelong friend of Dr. Cochran.

The people of Sanger in November elected as their outstanding citizen for 1953, *Dr. J. M. Sullivan.*

Dr. Martha Helen Hale, Dallas, became a member of the American Academy for Cerebral Palsy at the group's meeting in Fort Worth in November.

Dr. Michael E. DeBakey, Houston, was one of fourteen men throughout the nation named by former President Herbert Hoover to serve on the Hoover Commission's task force on medical services in the federal government, according to an announcement made in November.

Dr. Roger Hanna of Jackson, Mich., became director of tuberculosis hospitals operated by the state of Texas February 1, according to an announcement in the January issue of *Here and There,* official publication of the Texas Tuberculosis Association. Dr. Hanna was superintendent and medical director of the Jackson County Tuberculosis Sanatorium.

Dr. Michael E. DeBakey, professor of surgery at Baylor University College of Medicine, Houston, and *Dr. J. W. Duckett,* professor of clinical surgery, Southwestern Medical School of the University of Texas, Dallas, were two of the three guest speakers for a postgraduate course in surgery offered by the University of Oklahoma School of Medicine, Oklahoma City, early in January.

Dr. Paul Bontley and his family celebrated his parents' fiftieth wedding anniversary with them in Coshocton, Ohio, recently. Dr. Bontley is from Arlington.

Dr. Henry A. Hawkins, New Boston, was elected president of the East Texas Unit of the National Chinchilla Breeders of America at the group's meeting in November in Tyler.

Dr. Thomas J. B. Shanley was honored with a Thanksgiving dinner and presented with a gift by the Plainview Hospital staff before he returned to private practice in El Paso from his position as house physician at the Plainview Hospital and Civic Foundation, Plainview.

Dr. George E. Penny, Laredo, married Mrs. Dorothy L. Morrison in San Antonio, November 1, reports the *South Texas Citizen* of Laredo.

Dr. S. H. Kirkham and Miss Ruby Lea Long, both of Cleveland, were married October 31, according to the Cleveland *Advocate.*

Dallas Southern Clinical Society

Announcement has been made of the honor guests of the Dallas Southern Clinical Society who will participate in the 1954 spring clinical conference March 15-18 in Dallas. The physicians and their specialties are Drs. Willard M. Allen, St. Louis, gynecology; William B. Bean, Iowa City, internal medicine; Edward G. Billings, Denver, psychiatry; William L. Bradford, Rochester, N. Y., pediatrics; Alson E. Braley, Iowa City, ophthalmology; Ormond S. Culp, Rochester, Minn., urology; Clarence Dennis, Brooklyn, surgery; Thomas J. Dry, Rochester, Minn., cardiology; Charles H. Eyermann, St. Louis, allergy; Hugh F. Hare, Los Angeles, radiology; A. C. Hilding, Duluth, otolaryngology; Samuel F. Marshall, Boston, surgery; Paul E. McMaster, Beverly Hills, Calif., orthopedics; George T. Pack, New York, surgery; John Parks, Washington, D. C., obstetrics; Douglas H. Sprunt, Memphis, pathology; C. Dwight Townes, Louisville, ophthalmology; and Walter P. Work, San Francisco, otolaryngology.

This twenty-third annual conference will consist of general assemblies, round-table luncheons, a clinicopathologic conference, lectures, motion pictures, panel discussions, technical and scientific exhibits, and a dinner dance. Registration fee is $25, which may be mailed in advance to the society, Medical Arts Building, Dallas 1. Any member in good standing of a county medical society may attend. Hotel reservations are to be made directly with the hotel of choice.

Study of Man Continues at Dallas Health Museum

In the early eighteenth century Alexander Pope opined that "The proper study of mankind is man." Now in the middle of the twentieth century a good many people still agree with him. Some 200,000 Texans (and a liberal sprinkling of "foreigners") annually agree to the extent that they visit the Dallas Health Museum. Seven days a week, year after year, they file through the halls of this building on the State Fair grounds, studying exhibits on man, the structure of his body, and how to care for it.

Modeling the ribs for a new transparent man is a technician in the Dallas Health Museum workshop (*upper left*). All methods and equipment used in the man's creation were worked out at the shop since they were not obtainable elsewhere. Master minds in his creation were Mrs. Marguerite Hays, museum director, and Vic Klein, architectural designer.

The completed transparent man (*upper right*) replaces the German-made thirty year old man which was featured at the museum for a number of years.

Nurses study one unit of the beginning of life series (*below*). The museum is used regularly by professional groups as well as classes from all grades of public and private schools, and many youth groups such as YMCA, YWCA, Boy Scouts, and Camp Fire Girls.

No. 1 exhibit at the museum is a new transparent man which was recently finished in the museum workshop. This 6-foot replica of the human male has "flesh" of clear plastic through which are revealed brilliantly lighted organs, nervous system, and blood vessels. The "man" revolves slowly while a recorded voice describes the functioning of the body. In making the "man" a total of 10,760 man-hours were consumed. Thirteen different skills were employed. He is insured for $25,000.

Museum personnel believes that the new "man" is superior in many ways to the German-made "Homer," the original transparent man who was on display at the museum for a number of years. Homer has taken up his permanent residence at the American Museum of Natural History in New York City.

Among the newest exhibits at the museum is a long panel presenting a number of phases of good nutrition. Another display called "Common Contagious Diseases" has models of children's faces showing the symptoms of measles, scarlet fever, diphtheria, smallpox, mumps, chickenpox, ringworm of the scalp, and impetigo. Still another of the newest displays is on poliomyelitis.

An entire room at the museum is devoted to a series of handsome exhibits on cancer. The seven warning signals are graphically described. The accepted methods of treating cancer are explained. Visitors are urged to see their physicians when any suspicious irregularity occurs.

Another room is devoted to dental science. A giant illuminated tooth tells at a glance the basic tooth structure. A panel on dental facts and fallacies explodes old wives' tales about the teeth and gives the observer brief, concise answers to many questions relating to his own dental health. A photographic panel shows vividly how cases of malformation can be corrected by orthodontics.

The most popular exhibit in the museum, reports Mrs. Marguerite Hays, director, has always been the birth series. Known as the "Actual Birth of the Baby," it consists of nine statues showing the birth process. It is one unit in a series of exhibits on the beginning of life.

Most valuable of the museum services, according to a number of parents of young children in and around Dallas, are the parentcraft courses which are carried on the year round. Expectant mothers are taught in daytime classes and the fathers at night. Local physicians and a public health nurse give the students information on how to prepare for and care for the baby, and how to enjoy him in the process. They are referred to the classes by their private physicians.

A program on nutrition is just getting under way, sponsored jointly by the museum and the Dallas City Health Department. The first series of weekly classes planned will be on the subject of obesity. They will be open to the public.

Still another museum project which is as yet in the planning stage is a healthmobile. The idea is to equip a mobile unit with replicas of certain of the museum exhibits (even the transparent man). The unit would then travel over the state, stopping on town squares and school yards to open its doors to all comers for a quick lesson in health. This project awaits the necessary funds to be initiated.

Supported by private contributions, the seven year old museum is governed by a twenty-five man board of trustees. Turner B. Baxter, vice-president of the Rio Grande National Life Insurance Co., is president this year. Dr. J. Frank Roark is vice-president; Dr. M. O. Rouse, secretary; and R. L. Thomas, treasurer.

Postgraduate Course at Temple

Dates for the medical and surgical conference to be held at Scott and White Hospitals, Temple, under the auspices of the University of Texas Postgraduate School of Medicine have been changed from March 1-3 to February 22-24. The three-day conference will consist of operative clinics and panels on medicine and surgery. Tuition fee is $25.

Cancer Society Reports Progress

A review of progress in cancer research was presented by five physicians speaking at the annual meeting of the Texas Division of the American Cancer Society in Austin, January 14-16. Drs. Michael B. Shimkin, San Francisco, chief of the Laboratory of Experimental Oncology of the United States Public Health Service; Dr. Charles L. Martin, Dallas, clinical professor of radiology at Southwestern Medical School; Dr. William F. Mengert, Dallas, head of the Department of Obstetrics and Gynecology at Southwestern; Dr. Jack B. Trunnell, Houston, endocrinologist at the M. D. Anderson Hospital for Cancer Research; and Dr. Alfred M. Popma, Boise, Idaho, president of the American Cancer Society, reviewed the progress and prospects in laymen's terms.

A medical session on lesions of the breast featured discussions by Drs. A. C. Broders, Scott and White Clinic, Temple; Clifton D. Howe, M. D. Anderson Hospital, Houston; R. J. White, Fort Worth; Shimkin; and Popma.

John T. Andrews, Lawrence, Kan., general sales manager of the Kansas Public Service Company and chairman of the Kansas Division Cancer Crusade, was the chief speaker for the Crusade session, and Mrs. Harold V. Milligan, New York, director of volunteer recruitment and training for the American Cancer Society, made the principal address at the final luncheon. Dr. Popma was the main speaker at the annual dinner.

Travis T. Wallace, Dallas, was reelected president for the forthcoming year, as were Frank C. Smith, Houston, chairman of the board of directors; Dr. G. V. Brindley, Temple, vice-president for medical activities; Mrs. Joseph M. Perkins, Eastland, vice-president for lay activities; Philip R. Overton, Austin, secretary; and J. Louis Neff, Austin, executive director. Raymond Gee, Fort Worth, was named treasurer. Drs. C. E. Adams, Abilene; Charles T. Ashworth, Fort Worth; Porter Brown, Fort Worth; R. Lee Clark, Houston; Paul North, McKinney; Charles Phillips, Temple; David A. Todd, San Antonio; George Turner, El Paso; and John Dale Weaver, Austin, are among those serving on the executive committee.

The annual report of the executive director pointed out that during the fall and winter of 1953-1954, the cancer society conducted 13 district meetings, largely of a training nature, attended by 363 lay people, with associated scientific sessions drawing 871 physicians. Audiences totaling 277,073 saw motion picture films sponsored by the society; more than 4,000,000 pieces of literature were distributed; and 35,671 women produced 11,560 dozen cancer dressings.

Texas Proctologic Society

The Texas Proctologic Society is holding its third meeting February 27 in Houston, an organizational meeting having taken place in Dallas on September 13, 1952.

Founder members of the organization include Drs. Alvin Baldwin, Jr., Dallas; Hugh Beaton, Fort Worth; Harry B. Burr, Houston; Otho P. Griffin, Fort Worth; C. P. Hardwicke, Austin; J. Wade Harris, Houston; Herbert T. Hayes, Houston; Jack G. Kerr, Dallas; John McGivney, Galveston; Curtice Rosser, Dallas; Robert J. Rowe, Dallas; Tom E. Smith, Dallas; and Victor C. Tucker, San Antonio. Dr. Rosser served as the first president; Dr. McGivney as the first secretary-treasurer. At the 1953 meeting November 7 in Dallas, Dr. Hayes assumed the presidency and Dr. McGivney continued as secretary-treasurer.

The objectives of the society are to facilitate and disseminate knowledge relating to the colon, rectum, and anus; to encourage proctologic research; and to advance the specialty of proctology in Texas. To become a member, a physician must be a graduate of a class A medical school and a member in good standing of his county medical society, must have limited his practice in Texas to proctology for at least three years; must have attended at least one meeting of the society as a guest; and must be invited by the society to join.

Eisenhower's Health Message

On January 18, President Dwight D. Eisenhower sent a special message on his proposed health program to Congress. Briefly, his proposals included (1) "a limited federal reinsurance service to encourage broader health protection to more families," (2) "greater assistance to the states for rehabilitative services," (3) "assistance in the construction of (a) non-profit hospitals for care of chronically ill, (b) non-profit medically supervised nursing and convalescent homes, (c) non-profit rehabilitation facilities for the disabled, (d) non-profit diagnostic or treatment centers for ambulatory patients," and (4) a simplified formula for grant-in-aid "permitting the states to use greater initiative in state programs and take more responsibility" with states being "aided in inverse proportion to their financial capacity."

Four days before, the President had called for changes in the social security laws to provide (a) mandatory coverage of physicians and most other self-employed persons, (b) waiver of old age and survivors' insurance premiums for the disabled, and (c) greater emphasis on the rehabilitation of the physically handicapped, with a close liaison between waiver of premium benefits and the beneficiary's vocational rehabilitation.

Bills to implement most of these proposals have been introduced in Congress. An administration bill providing for reinsurance of health plans was not forthcoming immediately, but a bill previously introduced by Representative Charles Wolverton of New Jersey incorporates the general ideas proposed by President Eisenhower and currently is under consideration in a series of hearings on voluntary health insurance being held by the House Interstate and Foreign Commerce Committee of which Representative Wolverton is chairman. The Wolverton plan calls for a federal health insurance corporation which would underwrite various types of hospital, surgical, and medical insurance programs, permitting individual programs to offer "complete" coverage at low cost with the national corporation paying possibly two-thirds of each subscriber's claim in excess of, say, $500 or $1,000 in any one year. Member plans would contribute a percentage of their gross receipts to keep the national corporation going.

The American Medical Association, officials of which have kept in close touch with developments in Washington, through its Board of Trustees, which held a special meeting January 24 to consider the implications of the Eisenhower health proposals, issued a statement which read in part:

"The Board of Trustees . . . is pleased to find in this message so many of the ideas and principles for which the American Medical Association has striven for so many years.

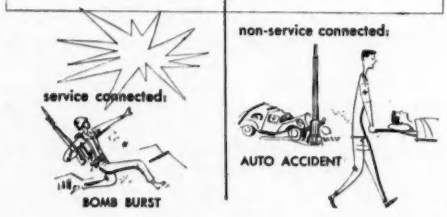
"The Board endorses the general objectives of the President to extend needed facilities, to promote further research, to increase coverage under voluntary health insurance and to rehabilitate the disabled. . . .

"The Administration's federal reinsurance proposal is indefinite. It is not clear whether this is true reinsurance or another form of government subsidy. This whole subject needs careful study and until the plan is spelled out in detail the American Medical Association can make no further comment. . . ."

IN VIEWING THE VA MEDICAL PROGRAM . . .

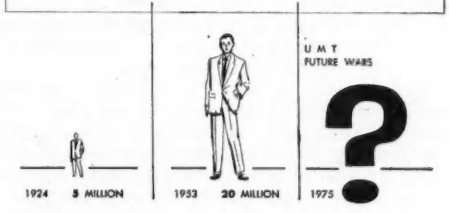
An explanation by the American Medical Association of medicine's attitude toward veteran's care

types of disability



The medical profession fully endorses and supports the medical program of the Veterans Administration through which veterans receive medical care and hospitalization without cost for illnesses or injuries incurred as a result of military service (left). It is felt, however, that the federal government should not assume the responsibility for the medical care of veterans whose disabilities are incurred in civilian life and which have no relationship to their military service.

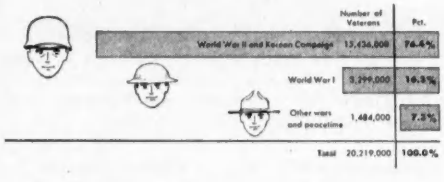
veteran population



The U. S. veteran population now includes about 40% of all adult males. Under existing legislation, the federal government is obliged to provide "free" medical care for many of these veterans, if they request it. The medical profession questions the soundness of providing medical care at federal expense to veterans with non-service-connected disabilities. It is likely that by 1975 the U. S. will truly be a "nation of veterans." If the VA medical program continues to accept responsibility for the care of veterans with service-connected and non-service-connected disabilities alike it is difficult to see how a complete federal health program can be avoided.

analysis of veteran population

PERIOD OF SERVICE



Taxpayers should note that as veterans grow older they require more frequent and increasingly longer periods of hospitalization. World War I patients are now hospitalized twice as long, on the average, as World War II patients with similar disabilities. World War II veterans, relatively young and comprising 76% of the total veteran population, present a costly long term responsibility to U. S. taxpayers. The medical profession recommends medical care through the VA for only those veterans with service-incurred disabilities and temporarily for those with tuberculosis or neuropsychiatric conditions of non-service-connected origin.

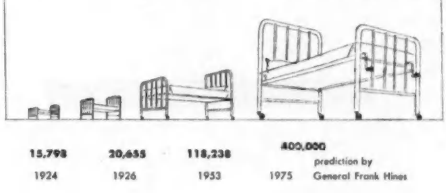
analysis of present veteran population

AGE DISTRIBUTION (Exclusive of those discharged on or after June 27, 1950)

DATE	JAN. 1, 1952	JAN. 1, 1960	JAN. 1, 1970
TOTAL	18,850,000	18,160,000	16,146,000
AGE 22-44	77.2%	62.7%	13.5%
45-64	21.8%	27.4%	73.7%
OVER 65	1.0%	9.9%	12.8%

Older veterans are hospitalized more frequently for civilian-incurred ailments than for service-connected disabilities. By 1970, over 86% of the present veterans will be age 45 or over, more than three times the number in this older age group today. Because of advanced age, they will require more frequent and prolonged hospitalization for illnesses having no relationship to their military service. Responsibility for such medical care should be assumed by the individual or local government, not by the federal government.

VA hospital beds



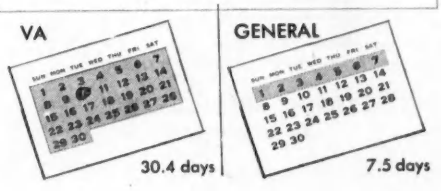
Former VA Administrator Frank Hines estimated that by 1975 under existing VA medical legislation, approximately 400,000 hospital beds will be needed. Yet medical authorities are convinced the VA cannot attract sufficient medical personnel to staff more than 120,000 beds. The VA now maintains three times the number of beds needed for treatment of service-connected cases.

average length of stay in VA hospital

	Average (days)	World War II (days)	World War I & Other (days)
TB	205.8	203.6	210.2
NP	178.3	89.2	430.6
GMS	30.8	23.5	42.5

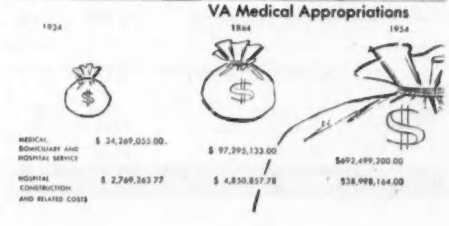
The average length of stay in VA hospitals for World War I veterans is considerably greater than for World War II veterans, which now comprise 76% of the total veteran population. The greatest pressure is yet to be exerted on VA hospitals as World War II veterans grow older and require increased medical care for disabilities unrelated to military service.

comparison of length of stay in VA and general hospitals GM&S



General medical and surgical patients in VA hospitals are confined four times longer than in non-federal hospitals. VA hospitals admit patients for examination, diagnosis, and treatment, much of which is normally undertaken outside civilian hospitals. Also, VA patients often remain hospitalized throughout the entire medical treatment period, whereas non-VA patients are usually treated at home during their convalescence. This is a major factor in the tremendous cost of the VA medical program.

increasing tax burden



In twenty years, the cost of the VA medical program to U. S. taxpayers has increased 1,875%. Yet only 15% of the patients treated in VA hospitals are veterans with disabilities incurred while in uniform. The VA medical program is now second in size and expense only to the nation-wide system of socialized medicine in Great Britain.

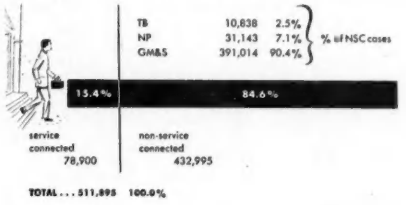
how VA facilities are being used

Patients Discharged During 1951

	TOTAL	SERVICE CONNECTED		NON-SERVICE CONNECTED	
TB	21,388	10,550 = 2.1%		10,838 = 2.1%	
NP	47,673	16,530 = 3.2%		31,143 = 6.1%	
GM&S	442,834	51,820 = 10.1%		391,014 = 76.4%	
TOTAL	511,895	78,900	15.4%	432,995	84.6%

The medical profession recommends that VA medical care be maintained for treatment of all service-connected cases and temporarily for all wartime veterans suffering from tuberculosis or neuropsychiatric disorders of non-service-connected origin, within limits of existing VA facilities, if they cannot afford private medical care. General medical and surgical patients with non-service-connected disabilities (now 76.4% of all VA patients) should not be entitled to "free" federal medical care.

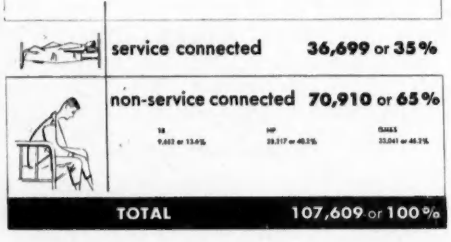
VA patients discharged during 1951



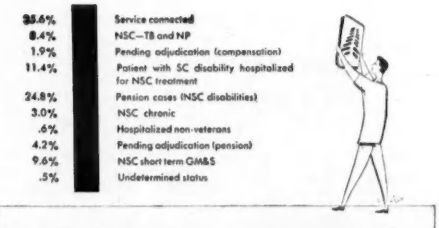
Of 511,895 patients discharged from VA hospitals in 1951, only 15.4% were treated for illnesses or injuries incurred as a result of military service. Physicians believe it is unsound to continue authorization of "free" lifetime medical care for those who suffer no mishap while in uniform, while other citizens with no military background must pay their own way.

VA patient load as of a given day

January 31, 1952



While the VA lists its patient load on a given day as 35% service-connected, only the long-range view of admissions and discharges over a year's time gives a truly accurate picture of the service-connected load (only 15.4%). This "discrepancy" appears because the VA's listing of 35% on a daily basis is not affected by the yearly turn-over of patients—the ratio of VA patients remaining to those treated and discharged (1 to 5.1). Over a period of a year, 84.6% of VA patients are treated for disabilities incurred after—and having no relationship to—military service.

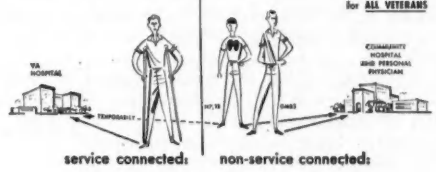

35.6% Service connected
8.4% NSC—TB and NP
1.9% Pending adjudication (compensation)
11.4% Patient with SC disability hospitalized for NSC treatment
24.8% Pension cases (NSC disabilities)
3.0% NSC chronic
.6% Hospitalized non-veterans
4.2% Pending adjudication (pension)
9.6% NSC short term GM&S
.5% Undetermined status

VA explanation of patient load on a given day

The above classification is presented by the VA as an explanation of the large non-service-connected patient load in its hospitals. The medical profession recommends that only the first category and those in the third whose disabilities are determined to be service-connected should be entitled to federal medical care. Non-service-connected TB and NP cases should continue to be treated on a temporary basis until community and state facilities can be readied. The remaining groups obviously have no service-connection and are hospitalized for illnesses or injuries incurred in civilian life.

the medical profession's policy on medical care for veterans

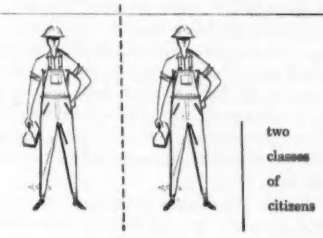
...to provide the highest quality of medical care for ALL VETERANS



service connected: non-service connected:

The medical profession stands for the highest quality medical care for all citizens. Veterans, as citizens, should accept the responsibility for their own health needs—unless they became disabled as a result of military service; then it is the responsibility of the Veterans Administration to provide medical care and hospitalization. Because many communities do not as yet have adequate facilities to care for war veterans with non-service-connected tuberculosis or neuropsychiatric disorders, the medical profession recommends that the VA continue—on a temporary basis—to treat these patients.

effects of present veterans medical legislation



two classes of citizens

It is the belief of the medical profession that it is unsound to authorize free lifetime medical care for veterans who suffered no mishap in uniform, while other citizens with no military background must pay their own way. Although the two men above are identical, they represent "two classes of citizens"—the veteran with no service-connected disability who is granted medical care at federal expense, and the non-veteran who must personally assume responsibility for his medical care.

what we are talking about...

1. Lack of moral or legal justification in providing federal medical care for ALL veterans
2. Effect of the VA program on civilian medical training programs
3. Current and eventual effects of VA program on civilian health standards
4. Competition for health personnel and patients
5. Unsound economics of overlapping federal medical services
6. Expanding tax-burden
7. Veterans' attitude toward VA medical program

These seven points are the conclusions of a careful analysis by the medical profession of the current VA medical program. (1) Veterans with no service-incurred disability should assume responsibility for their own medical care on the same basis as other citizens. (2) Medical schools and hospitals are hard pressed to train enough medical personnel for the benefit of all as long as the federal government siphons off such personnel from civilian programs. This VA practice has caused a duplication of hospital facilities and an unwarranted dispersion of health personnel. (3) The VA is creating an "artificial" shortage of medical personnel at the expense of civilian health programs. (4) Government has placed itself in competition with civilian medical programs, both for personnel and patients, making it increasingly difficult to operate civilian hospitals efficiently and economically. (5) Although the federal government is spending millions of dollars under the Hill-Burton act in civilian hospital construction, these hospitals are hard pressed to operate at reasonable cost while in direct competition with hospitals **wholly** supported by the federal government. (6) The medical profession asks whether a program providing "free" medical care to veterans with no service-incurred disabilities is a justified burden to impose on the taxpayers of this country. (7) Physicians do not believe that a veteran who served his country wishes to be the recipient of a federal "handout" at the expense of his fellow citizen-taxpayers.

POSTGRADUATE COURSES AT SOUTHWESTERN

A seminar course in bacteriology and chemistry for medical technologists will be given in Dallas February 26 and 27 by Southwestern Medical School of the University of Texas in association with the Postgraduate School of Medicine of the University of Texas.

The bacteriology seminar on February 26 will include such topics as acid-fast bacteria, antibiotic sensitivity tests, virology, leptospiral and rickettsial infections, mycotic diseases, and proper techniques in blood culture. The chemistry seminar on February 27 will include talks on hepatic and renal function tests, newer techniques and standard procedures, preparation of standard solutions and care of scientific instruments, and cholesterol determination and its significance.

Registration fee is $5 and tuition $10 for the bacteriology and chemistry course. Application and check covering the fees should be sent to the office of the dean of Southwestern, 2211 Oak Lawn, Dallas 19.

A postgraduate course in orthopedic surgery was given in Dallas February 15-16 by Southwestern in association with the Dallas Southern Clinical Society and under the auspices of the Postgraduate School of Medicine of the University of Texas, the Texas Medical Association, and the Texas Academy of General Practice.

The program included discussions on such subjects as congenital anomalies of bone, low back problems, knee troubles, common foot problems, basic principles of fracture healing, sprains and dislocations, curvatures and fractures of the spine, fractures of the upper extremity, fractures of the foot and hand, neck-arm syndrome, neuromuscular disorders, infections in bone, bone tumors, fractures of pelvis and hips, and fractures of the knee and tibia. The faculty consisted of full-time and clinical staff members of the medical school.

UNIVERSITY OF TEXAS MEDICAL BRANCH

The new 1,000-bed, thirteen-story John Sealy Hospital, Galveston, became home to more than 300 patients January 20, and tuberculous patients were moved into the new four-story, sixty-bed Ziegler Memorial Hospital shortly afterwards. Patients scheduled to undergo surgery remained in the old hospital until the ten operating rooms in the new building were completely equipped. More than 200 special guests were invited to the exercises.

The American Board of Surgery for the first time has held its oral examination at the Medical Branch. Approximately fifty candidates from the southern and western sections of the United States were in Galveston for the examinations January 15-16.

Dr. Arild E. Hansen, chairman of the Department of Pediatrics at the University of Texas Medical Branch, Galveston, discussed the national duty in regard to the handicapped child and the preventive program for such children at the regional conference of the International Council for Exceptional Children held in Houston the latter part of December. He delivered a paper on vitamin B_6 at the Nutritional Symposium of the American Medical Association in Chicago in November; and in late November and early December he spoke on rheumatic fever at the meeting of the American Academy of General Practice in Colorado Springs and of the American Medical Association in St. Louis.

C. M. Pomerat, Ph. D., professor of cytology and director of the Tissue Culture Laboratory at the Medical Branch, addressed the New York Academy of Science January 15 in New York.

Dr. W. R. Cooke, professor of obstetrics and gynecology at the Medical Branch, was honored recently by the unveiling of an oil portrait of him which is to be placed in the new John Sealy Hospital building.

Molly R. Harrower, Ph. D., clinical psychologist of New York, will conduct special seminars and demonstrate the ways a clinical psychologist may cooperate in current medical problems. For several weeks in February and March of each year, Dr. Harrower will reside in Galveston and lecture at the Medical Branch.

Dr. W. W. Nowinski, director of the Tissue Metabolism Laboratory at the Medical Branch, was visiting lecturer at the Institute of Cardiology, Mexico City, in November and December.

Dr. Robert N. Cooley has recently become professor of radiology and chairman of the Department of Radiology at the Medical Branch. He was previously associated with the Johns Hopkins School of Medicine, Baltimore.

Dr. Hamilton Ford, professor of neuropsychiatry, was elected secretary-treasurer of the Central Neuropsychiatric Association at its October meeting in Indianapolis.

Research grants were given recently to members of the Department of Pediatrics of the Medical Branch by the National Drug Company, $3,000; Sharp and Dohme, Inc., $6,500; United States Public Health Service, $40,896; Bureau of Home Economics and Human Nutrition of the United States Department of Agriculture, $45,000; National Live Stock and Meat Board, $2,000; and Hoffman-LaRoche, Inc., $2,000.

January visitors at the Medical Branch include Dr. M. B. Shimkin, chief of the Laboratory of Experimental Oncology; Hilton Smith, Ph. D., Texas Agricultural and Mechanical College, College Station; and Dr. Leland S. McKittrick, clinical professor of surgery, Harvard Medical School, Boston.

STATE TUMOR CONFERENCE MARCH 31

The State Tumor Conference will be held in Wichita Falls March 31 rather than March 13 as reported in the January JOURNAL. The program, sponsored by the Wichita County Medical Society Tumor Clinic, the American Cancer Society, and the State Department of Health, is approved for credit in formal postgraduate training. There is no registration fee. Scientific discussions will be given by Drs. Shields Warren, Boston; Alton Ochsner, New Orleans; and Jesshill Love, Louisville. Director of the clinic is Dr. Bailey R. Collins.

CORRECTION: WERNER'S SYNDROME

An error appears in the abstract of discussion by Dr. Mavis P. Kelsey, Houston, of the article entitled "Werner's Syndrome; A Study of Adrenocortical and Hepatic Steroidal Metabolism" by Drs. Jere M. Bauer and Jerome W. Conn, Ann Arbor, Mich., which was published in the December, 1953, issue of the TEXAS STATE JOURNAL OF MEDICINE (*49*:882-888). The first sentence of the paragraph beginning at the end of the first column on page 888 should read as follows: "It may be important that several relationships exist between the liver and adrenals, even though superficial evaluation shows no apparent clues to Dr. Bauer's theory."

District Surgical Meeting Held

The Second District of Texas Chapter of the American College of Surgeons held its first annual session November 7 in San Antonio with Dr. Asher R. McComb, San Antonio, president, presiding. Dr. George W. Waldron, Houston, district governor of the college, also was present and participated in the scientific program, which included ward rounds and operative clinics, a panel discussion on the abdomen, and a series of papers by San Antonio surgeons.

LIBRARY SECTION

RECENT PUBLICATIONS BY TEXAS PHYSICIANS

Following is a list of recent articles published by Texas physicians and available at the Memorial Library of the Texas Medical Association. Articles appearing in the TEXAS STATE JOURNAL OF MEDICINE are not included. If a physician who has had a paper printed in the past six months is not named below, the Library would appreciate being notified. Also, the Library would like to have two reprints of each article.

Alexander, S. A., and Downs, J. T., III: Influence of Weight Gain on Pregnancy, Am. J. Obst. & Gynec. *66:*1161-1167 (Dec.) 1953.

Bloxsom, Allan: Infants Delivered by Cesarean Section, Am. J. Obst. & Gynec. *66:*1172-1177 (Dec.) 1953.

Breckenridge, C. G., and Hoff, H. E.: Ischemic and Anoxic Dissolution of Supermedullary Control of Respiration, Am. J. Physiol. *175:*449-457 (Dec.) 1953.

Broders, A. C., Sr.: Carcinoma of Breast (Including Carcinoma in Situ) and Its Grades of Malignancy and Prognosis, West Virginia M. J. *49:*311-316 (Nov.) 1953.

Chinn, Herman I.; Milch, Lawrence J.; and Dugi, Alois J.: Comparison of Various Drugs Against Airsickness, J. Applied Physiol. *6:*257-259, 1953.

Cobb, Stephen W.; Stuart, John; and Mengert, William F.: Poliomyelitis and Pregnancy, Obst. & Gynec. *2:*379-383 (Oct.) 1953.

Cooley, Denton A., and DeBakey, Michael E.: Surgical Considerations of Excisional Therapy for Aortic Aneurysms, Surgery *34:*1005-1020 (Dec.) 1953.

Crossett, E. S., and Shaw, Robert R.: Pulmonary Resection in First Year of Life, Surg., Gynec. & Obst. *97:*417-424 (Oct.) 1953.

Daeschner, C. William; Salmon, George W.; and Heys, Florence M.: Cat-Scratch Fever, J. Pediat. *43:*371-384 (Oct.) 1953.

Denman, Frank R., and Lomas, Robert D.: Ruptured Omphalocele with Duodenal Obstruction, M. Rec. & Ann. *47:*694-695 (Nov.) 1953.

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CONTRIBUTIONS TO LIBRARY

Grateful acknowledgment is made by the Texas Medical Association Memorial Library of the following recent gifts:

Dr. C. H. Brownlee, Austin, 445 journals.
Dr. George E. Clark, Jr., Austin, 4 books, 818 journals.
Dr. Josephine Dunlop, Austin, 12 journals.
Dr. James G. Hamer, Austin, 224 journals.
Dr. Henry L. Hilgartner, Austin, 33 journals.
Dr. J. Warren Jackson, Austin, 23 journals.
Dr. J. Edward Johnson, Austin, 7 books, 22 journals.
Dr. S. N. Key, Jr., Austin, 12 journals.
Dr. N. L. Schiller, Austin, 9 journals.
Dr. Milton Turner, Austin, 5 books, 13 journals.
Dr. R. T. Wilson, Austin, 118 journals.

MOTION PICTURES FOR LOAN

They Also Serve

16 mm., sound, 17 minutes.

This film was designed as an introduction to the organization of medical and health services for disaster and to stimulate study of the role the civilian medical profession must assume in peacetime, to insure the systematic and successful response by medical and other health services in disaster situations, particularly in war. It is an excellent film for all medical groups and hospitals.

Observations of Hepatitis

16 mm., sound, 30 minutes. (Courtesy of Mead Johnson & Company, Evansville, Ind.)

This is a lecture film, with numerous charts used in illustration. The film is largely concerned with an outbreak of infectious hepatitis in a children's camp. Careful studies on the epidemiology of the illness were conducted, and the causative agent was isolated and studied. Source of contamination was determined. This film is suitable for showing to pediatricians, internists, and medical students, as well as general practitioners.

Surgial Treatment for Congenital Pyloric Stenosis

16 mm., silent, color, 15 minutes.

The patient is a 3 week old boy. Preoperative roentgenograms are shown, and the anesthesia is discussed. The procedure consists of removal of a wedge-shaped segment of thickened pyloric musculature down to, but not through, the mucosa. A test for patency of the pylorus is shown. Postoperative views are included.

BOOK NOTICES

[1]Clinical Obstetrics

By Members of the Staff of the Pennsylvania Hospital. Edited by CLIFFORD B. LULL, M. D., *Late Director, Division of Obstetrics and Gynecology, Pennsylvania Hospital, and* ROBERT A. KIMBROUGH, M. D., *Director of the Division of Obstetrics and Gynecology, Pennsylvania Hospital; Professor of Gynecology and Obstetrics, Graduate School of Medicine, University of Pennsylvania. 732 pages. $10. Philadelphia, J. B. Lippincott Company, 1953.*

This book is an unusually good clinical survey of obstetrics. It includes the composite work of numerous coauthors, each of whom contributes a fundamental chapter in its make-up. This gives a nice résumé with the increased value of many opinions pertaining to the same subject.

The chapter on nutrition and nutritional deficiencies with their clinical relation to many of the subjective and objective entities encountered in everyday practice is especially informative and interesting. This approach to the problems of prematurity, toxemias, and many of the distressing if not dangerous symptoms experienced by the obstetric patient will be of value to those interested in good prenatal care. The inclusion of an excellent chapter on fertility and the problems relating to childless couples is properly included in a book of this type. Dr. Hingson has added a chapter on analgesia and anesthesia, which is becoming of increasing interest and importance to physicians doing obstetrics.

Because of the especially good and profuse illustrations and the clinical approach, this book will make a good reference for the student and practitioner.

[2]Chronic Pulmonary Emphysema: Physiopathology and Treatment

MAURICE S. SEGAL, M. D., *Clinical Professor of Medicine, Tufts College Medical School; Director, Department of Inhalational Therapy, Boston City Hospital, and* M. J. DULFANO, M. D., *Resident, Department of Inhalational Therapy, Boston City Hospital; Research Fellow in Medicine, Tufts College Medical School. Modern Medical Monographs. 180 pages. $5.50. New York City, Grune & Stratton, Inc., 1953.*

The monograph prepared by Drs. Segal and Dulfano on chronic pulmonary emphysema is an important addition to medical literature. Chronic pulmonary emphysema is a disabling disease which only recently has been better understood in all of its physiologic and pathologic aspects, chiefly due to recent advances in the fields of pulmonary function tests and respiratory physiology. The treatment of this distressing condition, which at best is only palliative, has been little understood by medical practitioners; as a result patients suffering from this condition have gone from physician to physician and even to medical quacks and to the use of patent medicines in their attempt to find relief.

The monograph opens with the definition of chronic pul-

[1]*Glenn R. Wright, M. D., Cleburne.*
[2]*Robert R. Shaw, M. D., Dallas.*

monary emphysema differentiating it from nonpulmonary emphysema and emphysema of the nonobstructive type. The discussion of the development of this condition is prefaced by an excellent description of the intrathoracic pressure relationships in health. A description of the pathologic course is well illustrated with photographs and microphotographs. The chapter on pulmonary function tests applicable in this condition may prove too technical for the average physician but will delight the student of respiratory physiology. The terminology of pulmonary function tests is carefully defined, and the significance of each test in relation to chronic pulmonary emphysema is pointed out. The chapters of "Clinical Concepts, Pulmonocardiac Complications" and "Therapeutic Management" are easily comprehended by any physician and should give the physician confidence in his ability to treat these patients intelligently. The descriptions of therapeutic measures are complete down to exact details of drugs to be used and dosages employed. The chapter on oxygen therapy is especially valuable since this type of therapy has in the main been badly mismanaged because of the physician's ignorance of the dangers of the administration of 100 per cent oxygen in the hypoxic patient. Detailed descriptions are given of the use of the various types of masks and tents that are commercially available for oxygen therapy. The chapter on mechanical respiration describes the use of the newer intermittent positive pressure mechanisms employing various types of valves. The valve of pneumoperitoneum therapy and breathing exercises are adequately discussed.

This monograph actually has a much wider usefulness than its title would indicate. For the general practitioner, it affords an excellent guide toward proper understanding of the signs, symptoms, and complications of this disease and will help him immeasurably in the management of patients with chronic pulmonary emphysema. For the specialist in the management of cardiorespiratory diseases, the monograph is sufficiently detailed and the conclusions so adequately backed by laboratory proof that it can be used as a reference text and a teaching guide. For the student of respiratory physiology, the chapters on pulmonary function tests and the appendix, in which detailed descriptions of the methodology used are presented, provide an adequate, concise manual that would be valuable in the experimental laboratory.

[3]Short Practice of Surgery

HAMILTON BAILEY, F.R.C.S. *(Eng.)*, F.A.C.S., *Emeritus Surgeon, Royal Northern Hospital, London; Senior Surgeon, St. Vincent's Clinic and the Italian Hospital, and* R. J. MCNEILL LOVE, F.R.C.S. *(Eng.)*, F.A.C.S., *Surgeon, Royal Northern, Mildmay Mission, and Metropolitan Hospitals, London. With pathologic illustrations by* L. C. D. HERMITTE, M. B., Ch. B., *(Edin.). Ninth edition, 1,254 pages. $12.50. Baltimore, Williams and Wilkins Company, 1953.*

This volume of general surgery, now in its ninth edition, is interesting because of its inclusion of material which primarily has been helpful to the authors' practices in the diagnosis and treatment of disease, and for this reason it contains valuable personal touches characteristic of other British texts. The footnotes regarding the contribution of current and historical personalities in surgery are an extremely interesting inclusion.

The outlined material is carefully arranged and ordinarily is widely accepted, an exception being certain views regarding the topical use of the sulfonamides.

Often theory suffers by omission; however, the book enumerates countless office and hospital aids which are not generally found in such completeness. Outstanding are the sections on nerves, the hand, and infectious diseases. Weakest are the chapters on the bile ducts and pancreas.

Although some of the numerous illustrations are of such quality as to be of doubtful assistance, as, for example, several of the black and white photographs, most of them are quite descriptive, particularly the several line drawings.

Despite its semioutline form and its deemphasis on surgical technique, this text deals with the subject of surgery as a whole and should be of great interest to the student and general practitioner because of its comprehensiveness.

[3]*W. R. Whitehouse, M. D., Cleburne.*

[4]Essential Urology

FLETCHER H. COLBY, M. D., *Chief of the Urological Service, Massachusetts General Hospital; Associate Clinical Professor of Genito-Urinary Surgery, Harvard Medical School, Boston. Second edition. 650 pages. $8. Baltimore, Williams and Wilkins Company, 1953.*

A welcome addition to the urologic library is this new book, which, as its title implies, is a presentation of the important facts concerning genitourinary conditions. It does not pretend to be a comprehensive textbook of urology. It gives little attention to the rare conditions. However, it discusses in detail and in a thorough manner the more common problems which are met within this field of medicine.

Particularly worthy are the descriptions of the embryology of the genitourinary organs and the discussion of diseases of the prostate with the various types of surgical management.

The section on the physiology of the kidney is modern and gives a practical understanding of the abnormal functioning of kidneys in disease and following systemic trauma. The chapter on tuberculosis of the genitourinary organs has been revised. This excellent discussion pays particular attention to the modern treatment by surgery and the newer drugs. The chapter on disease of the testes also has been revised, and the discussion on testicular tumors is worth-while reading. This also applies to the subject of urinary calculi. Illustrations throughout the book are abundant and informative.

The author planned this book as a useful aid for students, residents, and general practitioners. However, the experienced urologic surgeon will find it a beneficial addition to his medical library because of the concise and thorough discussion of various urologic problems.

[5]Diagnostic Tests in Neurology

ROBERT WARTENBERG, M. D., *with forewords by* SIR GORDON HOLMES, M. D., F.R.S., *and by* STANLEY TRUMAN, M. D. *200 pages. $4.50. Chicago, Year Book Publishers, 1953.*

This text is an excellent review of diagnostic neurologic tests. Dr. Wartenberg brings out strongly the fact that too much reliance is paid on extensive laboratory work and not enough on careful observation which is available to anyone so inclined. The book has an introduction describing the plan of examination and procedures which are applicable in the office. The book is further divided into seven sections dealing with the tests of cranial nerves, peripheral nerves, pyramidal system, extrapyramidal system, cerebellar system, sensory system, and vasomotor-trophic system.

Dr. Wartenberg, a distinguished neurologist who has studied and taught on two continents, gives the benefit of his many years of observation. The book has many pictures which clearly show the findings in the diagnostic tests which he describes. This adds to its usefulness in further delineating the tests.

The book certainly is to be recommended both to the general practitioner and to the specialist as an excellent text on diagnostic tests in neurology.

[4]*Robert F. Thompson, M. D., El Paso.*
[5]*Robert J. Goodall, M. D., Houston.*

[6]Commotio Cerebri

CYRIL B. COURVILLE, M. D., *Director, Ramon Cajal Laboratory of Neuropathology, Los Angeles County Hospital, Los Angeles. 161 pages. $5.25. Los Angeles, San Lucas Press, 1953.*

Dr. Courville has done an excellent piece of work in compiling and organizing the available medicolegal aspects of cerebral concussion and the postconcussion syndrome. Through the author's involvement in the courtroom aspects of compensation demands following head injuries as well as his experience in the field of neurology and neuropathology, he has set down in one volume a survey which will be a reference source to physicians and attorneys in problems of this type. The author approaches his subject from the historical viewpoint with excellent use of source material. This same approach to the mechanism and the pathology of commotio cerebri and the process of healing permits the reader not only to find valid conclusions within this volume but to expand them by following out the quoted source material. Management of this type of injury is rather well covered although it appears that the author is as often stumped for specific remedies as are many of lesser experience.

This monograph is highly recommended to any physician who becomes involved in the medicolegal aspects of head injuries. I feel that it would be of special value as a preparation for anyone who is called upon to testify in court. This book also will be of use to those of more purely clinical interest as an excellent survey of the entire problem from historic, pathologic, and therapeutic standpoints.

[7]Pain Syndromes and Their Treatment

JAMES M. TARSY, M. D., *Chief, Arthritis Clinic, University (New York Postgraduate) Hospital, New York University-Bellevue Medical Center; Assistant Clinical Professor of Medicine, Postgraduate Medical School, New York University. 592 pages. $12. Springfield, Ill., Charles C Thomas, 1953.*

This book is an exhaustive review of pain syndromes of the upper extremities and trunk. The author gives satisfactory discussions of the pathogenesis, diagnosis, and treatment of these syndromes, and, as he states in his introduction, has compiled much information that has been published previously in articles dealing with individual pain syndromes.

This book would be a worth-while addition to the physician's diagnostic armamentarium.

[8]Basic Bacteriology: Its Biological and Chemical Background

CARL LAMANNA, PH. D., *Associate Professor of Bacteriology, and* M. FRANK MALLETTE, PH. D., *Associate Professor of Biochemistry, Johns Hopkins University School of Hygiene and Public Health. 677 pages. $10. Baltimore, Williams and Wilkins, 1953.*

The material presented in this book is intended for the more advanced student of bacteriology or microbiological biochemistry. The authors have emphasized the theoretic rather than the descriptive aspects of the subject. Several chapters are devoted to the fundamental concepts of physics, chemistry, and biology which are essential for an understanding either of bacteriologic phenomena or of the techniques employed in bacteriology. These chapters include discussions on physical properties of bacteria, theory of microscopy, the physics of light and color, and the chemistry of dyes used in staining. The microbiological biochemist will find the chapters on enzymes, nutrition of bacteria, and bacterial metabolism of especial interest. The use of diagrams rather than tables enables the reader more easily to comprehend the topic under discussion.

The book is a comprehensive and well-written treatise on pure bacteriology; however, it was not designed to present the medical aspect of the subject.

[9]Synovial Fluid Changes in Joint Disease

MARIAN W. ROPES, M. D., *Associate Physician, Massachusetts General Hospital, and Assistant Clinical Professor of Medicine, Harvard Medical School, Boston, and* WALTER BAUER, M. D., *Chief of Medical Services, Massachusetts General Hospital, and Jackson Professor of Clinical Medicine and Director of Robert W. Lovett Memorial Foundation for the Study of Crippling Disease, Harvard Medical School. 149 pages. $4. Cambridge, Mass., Harvard University Press, Commonwealth Fund, 1953.*

There long has been a need for a concise source of information about synovial fluid characteristics which this book answers in a satisfactory manner. Only general descriptions of synovial fluid have been presented heretofore in the texts dealing with arthritides, and this probably has been due to the fact that such studies are extremely difficult. Therefore, the authors of this publication have performed a real service to the profession.

The opportunity to learn more about the synovial fluid is timely since physicians are now doing more aspirations of joints for treatment purposes and can easily secure samples for analysis; the instillation of hydrocortisone, antibiotics, and hyaluronidase in treatment of certain joint diseases as well as during the taking of pneumarthrograms is becoming a much more common procedure.

The accompanying charts are an aid both in diagnosis and prognosis of joint diseases, especially the summarization chart in the back of the book. The distinguishing features between the two large groups of joint diseases are clearly defined along with certain more specific changes indicating, when combined with clinical impressions and roentgen-ray findings, the evidence in favor of individual joint conditions. The changes noted in the chemical and cytologic analyses during treatment offer a valuable adjunct in following a case. In view of the sometimes inconclusive evidence through study of biopsy material, the opportunity to gain information in this manner will be welcomed by most physicians concerned with joint diseases.

It is gratifying, indeed, to find, at last, this much needed description of synovial fluid changes.

[10]The Psychopathic, Delinquent and Criminal

GEORGE N. THOMPSON, M. D., F.A.C.P., *Associate Clinical Professor of Neurology and Psychiatry, School of Medicine, University of Southern California, Los Angeles. 142 pages. $4.50. Springfield, Ill., Charles C Thomas, 1953.*

Organicists will like this treatise.

This book of ten chapters lends support to organic causes of psychopathic delinquencies and psychopathic criminal behaviors.

The author gives evidence for the importance of heredity, trauma, infection, neoplasms, degeneration, and other diverse factors in the causation of these disorders. He plays down the significance of psychogenic factors.

There are discussions of psychopathic personality as an entity and psychopathology of the entity is handled from the author's viewpoint. Cases are presented. Treatment is professed to be a serious and difficult problem.

The book is suggested for specialists and researchers.

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[6]*Clarence S. Hoekstra, M. D., Dallas.*
[7]*R. Vincent Murray, Jr., M. D., Austin.*
[8]*Robert P. Sandman, M. A., Austin.*
[9]*P. L. Day, M. D., San Antonio.*
[10]*Lee F. Scarborough, M. D., Austin.*

[11]The Roentgen Aspects of the Papilla and Ampulla of Vater

MAXWELL H. POPPEL, M. D., F.A.C.R., *Professor of Radiology, New York University Post-Graduate Medical School, and Director of the Roentgen Ray Department, Bellevue Hospital;* HAROLD G. JACOBSON, M. D., F.A.C.R., *Director, Department of Roentgenology, Hospital for Special Surgery, New York; and* ROBERT W. SMITH, M. D., *Senior Resident in Radiology, Veterans Administration Hospital, Bronx, N. Y. 195 pages. $8.50. Springfield, Ill., Charles C Thomas, 1953.*

The monograph is intended by the author to be a "complete presentation of the roentgenologic survey of the anatomy, physiology, and pathological status of the Vaterian region." Though it may fall short of the goal, it is a worth-while effort.

The development, anatomy, and physiology of the papilla and ampulla of Vater and of the sphincter of Oddi are reviewed with a report, illustrations, and tabulation of the authors' anatomico-roentgen studies of 100 specimens.

Malignancy, both primary in the Vaterian segment and extended from adjacent organs, inflammatory and calcerous disease, benign tumors, and biliary dyskinesia are discussed.

There are 106 good figures and several tables. A large proportion of the book is given to differential diagnosis.

A bibliography listing 138 references and an index follow the text.

In general, this book seems to come up to the standards set by the authors. It should be readily available to anyone interested in the diagnosis of gastrointestinal conditions.

[11]*C. H. Frank, M. D., Texarkana.*

Fool's Haven

C. C. CAWLEY. *210 pages. $2.75. Boston, House of Edinboro, 1953.*

The theme of "Fool's Haven" is woven around a young girl and her mother who have been caught in the web of a religious cult, the basic principles of which were not to seek a doctor but to pray. The belief was so great that one life was lost because of a ruptured appendix and a young lover left his career in science to study law in hopes that he could help break up such cults.

"Fool's Haven" is a story that could take place in any neighborhood when cults defying medicine are allowed to operate.

Stedman's Medical Dictionary

Edited by NORMAN BURKE TAYLOR, M. D., F.R.S.C., F.R.C.S. *(Edin.),* F.R.C.P. *(Can.), M.R.C.S. (Lon.), Associated with University of Western Ontario. Eighteenth edition. 1561 pages. $11.50. Baltimore, Williams and Wilkins, 1953.*

This new edition of a favorite reference tool covering medicine and the allied sciences has added many new entries and illustrations. The main entries have been changed from Latin to English. The section on etymology contains a helpful root-word list. The appendix with its tables and charts is still a valuable part of the dictionary.

ORGANIZATION SECTION

AMERICAN MEDICAL ASSOCIATION

Rural Health Conference in Dallas

The ninth National Conference on Rural Health is to be held at the Baker Hotel in Dallas, March 4-6. With the theme "Let's Put More 'U' in Comm*Unity*," the conference is sponsored by the American Medical Association's Council on Rural Health, Dr. Carll S. Mundy, Toledo, acting chairman. Speakers and three general discussion panels will stress the importance of organized community efforts in the maintenance of healthful conditions in agricultural areas.

Topics for panel discussions will be what farm areas are doing to solve pressing rural health problems, the role of nutrition in rural health programs, and the various aspects of health insurance. Dr. Everett C. Fox, Dallas, will participate in one of the discussions.

Dr. Edward J. McCormick. Toledo, AMA President, will review the AMA's contributions to rural health. Dr. Joseph I. Greenwell, New Haven, Ky., national General Practitioner of the Year, will discuss the role of the family doctor in small communities. Dr. Chester U. Callan, Rotan, chairman of the Texas Medical Association's Committee on Rural Health, will present a planned approach to doctor distribution. Other speakers will discuss how high school girls formed a club to promote interest in nursing as a career, how a community was able to build and operate a hospital on a budget far below average, how a physician met a community's need for a clinic by building one at his own expense, and how soil is important to nutrition.

Chauncey Leake, Ph. D., Galveston, vice-president of the University of Texas School of Medicine, will be a dinner speaker. Among those who will give greetings will be Mayor Robert L. Thornton, Dallas; Dr. George F. Lull, Chicago, AMA secretary and general manager; Dr. George Turner, El Paso, President of the Texas Medical Association; and Mrs. Leo Schaefer, Salina, Kan., President, Woman's Auxiliary to the AMA.

Presiding over the various sessions will be Dr. Allen T. Stewart, Lubbock; Dr. N. H. Gardner, East Hampton, Conn.; Dr. George F. Bond, Bat Cave, N. C.; Dr. Willard A. Wright, Williston, N. D.; and Dr. Mundy, all of whom are regional directors of the council.

As in the past few years, an informal preconference session will be held on the morning of March 4 for doctors only. This session will be devoted to problems confronting physicians who are members of state rural health committees or committees handling rural health problems. Greetings will be extended by Dr. F. J. L. Blasingame, Wharton, President-Elect of the Texas Medical Association and member of the AMA Board of Trustees, and speakers will include Dr. James Stevenson, Tulsa, treasurer of the Oklahoma Physician's Service; Dr. Henry Randel, Fresno, Calif., chairman of the California Medical Association's Committee on Rural Health; and Dr. Mundy.

TEXAS MEDICAL ASSOCIATION

COUNTY AND STATE OFFICIALS CONFER

The semiannual meeting of the Executive Council of the Texas Medical Association was held in the headquarters building in Austin on January 24 with the President, Dr. George Turner, El Paso, expediting business sufficiently for adjournment before noon. This meeting, at which reports from most councils and committees were submitted, concluded a week-end of activity which included an all-day conference of county medical society presidents and secretaries and numerous committee meetings January 23.

Highlights of the week-end was the afternoon program arranged for county society officers and featuring addresses by Dr. Frank E. Wilson, Washington, D. C., director of the American Medical Association's Washington office; Dr. Everett C. Fox, Dallas, former chairman of the Texas Association's Council on Medical Economics; and Dr. F. J. L. Blasingame, Wharton, member of the AMA Board of Trustees and President-Elect of the Texas organization. These three discussed the medical care policies of the Veterans Administration and the attitude of the medical profession toward them and also the proposals relating to health introduced to Congress earlier in the week by President Dwight D. Eisenhower. The activities of the AMA Washington staff and of the AMA Legislative Committee were described, and the urgency of support by individual physicians, working in their own communities and communicating with their own representatives and senators, was stated.

During the morning, the county officers had an opportunity to become better acquainted with the state organization. Nine councils, boards, and committees were described and their present programs outlined by the respective chairmen: Dr. R. W. Kimbro, Cleburne, Trustees; Dr. R. G. Baker, Fort Worth, Councilors; Dr. Charles L. McGehee, San Antonio, Medical Defense; Dr. G. W. Cleveland, Austin (representing Dr. J. B. Copeland, San Antonio), Medical Jurisprudence; Dr. May Owen, Fort Worth, Scientific Work; Dr. Harvey Renger, Hallettsville, Medical Economics; Dr. M. O. Rouse, Dallas, Medical Education and Hospitals; Dr. Troy A. Shafer, Harlingen, Public Relations; and Dr. Chester U. Callan, Rotan, Rural Health. A question and answer period followed this session as well as the afternoon panel discussion.

Board and council chairmen reported briefly to the Executive Council, calling attention to the satisfactory financial condition of the Association, reporting on studies to determine what action should be taken to approve insurance companies desiring to provide group policies for members of the Association, revealing plans possibly leading toward college courses for doctors' assistants and medical school courses in medical jurisprudence, and outlining the scientific programs being carried on by telephone broadcast and at the annual sessions for the further education of practicing physicians.

The Committee on Library Endowment called attention to the gift of his library to the Memorial Library of the Texas Medical Association by Dr. L. H. Reeves of Fort Worth and commended such action, as well as money gifts to the Library endowment fund, to other members of the Association and their families. The Committee on Public Relations pointed with satisfaction to the Medical Students' Days held partially under its auspices in the three medical schools of the state, the conference for county presidents and secretaries the preceding day, and the twenty-nine special newspaper sections commemorating the hundredth anniversary of organized medicine in Texas which were issued in recent months. The Committee on Doctor Distribution reported not a single request for additional doctors in a pilot survey directed at all communities of more than 800 population in District 7, proof to the committee that physician care in that area is adequate. The Committees on Nursing Care, Blood Banks, Emergency Medical Service, and Rural Health, gave evidence of developing programs in their respective areas in cooperation with other agencies. The Committee on Infringement of the Private Practice of Medicine indicated that the medical school staffs and faculties and the private physicians practicing in the same towns apparently have worked out satisfactorily the problems affecting referral and treatment of patients.

The Executive Council officially designated April 25, 26, and 27 as the dates for the 1955 annual session, scheduled to be held in Fort Worth. It also adopted two resolutions, one recommending to Governor Allan Shivers that the special session of the Legislature which he has called include a consideration of further financial support to the medical and dental branches of the University of Texas and to the state hospitals and special schools and the other approving development of a clearing house for blood by the Texas Association of Blood Banks.

Mrs. E. W. Coyle, San Antonio, President of the Woman's Auxiliary to the Texas Medical Association, addressed the Executive Council by invitation, calling attention to the program which the wives of Texas physicians are carrying on to bolster the aims and objectives of the medical profession. She introduced Mrs. Mark Latimer, Houston, President-Elect of the State Auxiliary, and Mrs. George Turner, El Paso, President-Elect of the AMA Auxiliary.

Doctor Distribution Studied

During the last several years, anyone listing the main public relations problems of the medical profession in Texas would have included the problem of doctor distribution.

There are 254 Texas counties, and although the ratio of doctors to population compares reasonably with the national average (Texas: 1 per 813; United States: 1 per 730), the state's broad reaches and sparsely populated counties lead to misconceptions about "doctor shortages." Many well-meaning friends of medicine in recent years have referred to the "shortage of doctors in Texas."

About a year ago the Texas Medical Association determined to set up a slide rule of facts against which to measure the actual conditions as opposed to supposition and rumor.

The Board of Trustees named a special Committee on Doctor Distribution headed by Dr. Chester U. Callan, Rotan, chairman of the Committee on Rural Health, and consisting also of Dr. Harvey Renger, Hallettsville, chairman of the Council on Medical Economics; Dr. Troy A. Shafer, Harlingen, chairman of the Committee on Public Relations; Dr. J. C. Terrell, Stephenville, past chairman of the Committee on Rural Health; and Dr. Allen T. Stewart, Lubbock, past president of the Texas Medical Association and present member of the American Medical Association's Committee on Rural Health.

Committee objectives were simple: (1) Find out the extent of "doctor shortage" in the eyes of the profession. (2) Find out the extent of "doctor shortage" in the eyes of Texas communities. (3) Where shortages exist, do something about them. This would include showing communities their part of the two-way job.

The committee immediately launched a survey of the profession itself. Questionnaires went to 6,500 doctors. Answers came from 6,000. The committee established to its satisfaction that medicine's viewpoint held that help was needed in the ranks of the general practitioner, particularly in communities under 5,000, and most particularly in the northwest areas of Texas.

Thus armed, the committee faced the problem of asking communities what they think. Realizing that it might be swamped with requests for help—justified or based on misinformation—the committee determined to move slowly. A pattern for statewide survey was applied to the reasonably limited confines of District 7 surrounding Austin.

The same approach which would be used in every county in the state at the proper time was utilized in the ten counties of the district. A printed pamphlet, "Does Your Community Need a Doctor?" was prepared for distribution to

community officials. Dr. J. M. Coleman of Austin, district councilor, wrote letters to each doctor in the district, as well as to county society officers. He explained the intent and the mechanics of the survey about to be launched.

Then Dr. Callan wrote the chamber of commerce secretary, the mayor, or the county judge, as appropriate, in each community with 800 population or more. His letter follows:

"Dear Sir:

"As you doubtless know, many critics of the American Free Enterprise System maintain a running fire of propaganda against the business and professional men to weaken public confidence in our way of life. The medical profession is well acquainted with these tactics.

"One criticism most frequently heard is that there aren't enough doctors to go around. Actual facts show that the ratio of physicians to population in America is much higher than any other nation in the world.

"However, the medical profession of Texas recognizes that problems do exist, primarily in the area of doctor distribution—not of doctor shortage. Our recent statewide survey has established this fact clearly.

"In this respect, we are making a sincere and continuous effort to extend medical service on the broadest possible base. Among many other things being done to place more doctors in rural areas, a special committee on doctor distribution has been created by the Texas Medical Association.

"The function of this committee is to work at the local level with qualified representatives of Texas communities where the facts show that such communities do not have enough doctors of medicine.

"In this connection, we are enclosing a brochure which contains explicit instructions on pages 5, 6, and 8, which, in the event your community needs additional doctors, should be followed carefully, and the results sent to Texas Medical Association, 1801 Lamar Boulevard, Austin. It is our belief, then, that representatives of this committee can meet with representatives of the community and determine definite needs for additional doctors of medicine in your town.

"In the event that we do not hear from you, we shall know that you consider the number of doctors in your community as sufficient.

"Please understand that this is a sincere effort by the more than 6,500 members of the Texas Medical Association to establish the real facts as regards the distribution of medical care and, wherever possible, to do something about existing shortages discovered."

Committee members meeting in Austin in late January reviewed the findings of the survey. They revealed that not one community requested additional help. Conclusions reached by the committee were that either the distribution problem is not nearly so serious as medicine's critics would make it out to be, or the particular district under survey is happily far better off than others throughout the state.

In any event, the wisest course to the committee seemed to be to pursue the pilot survey through portions of three other districts until such time as it may be broached statewide, and materials for this purpose are now ready.

Medical Officer Examination

A new medical officer examination has been announced by the United States Civil Service Commission for filling the positions of rotating intern and resident in training in psychiatry and in neurology at St. Elizabeth's Hospital, Washington, D. C. Further information is available from the commission, Washington 25.

SIDE ATTRACTIONS AT ANNUAL SESSION

Sometimes the sideshow at a circus is as entertaining as the main performance, and the Council on Scientific Work of the Texas Medical Association, cooperating with specialty societies, medical alumni and fraternity groups, and others who have a contribution to make at a physicians' convention, reports a full slate of scientific and social activity to assure a "sideshow" worthy of being on the same bill with the more official program at the Texas Medical Association annual session in May.

At least twelve related specialty organizations will convene Sunday or Monday, May 2 or 3, with scientific presentations open to all members of the Texas Medical Association. The Texas Air-Medics Association, in addition to a round-table discussion of Civil Aeronautics Authority problems participated in by Dr. W. R. Stovall of Washington, D. C., will be taken on a tour of the research laboratories of the School of Aviation Medicine at Randolph Field.

The Texas Chapter of the American College of Chest Physicians promises Dr. William A. Hudson of Detroit, president-elect of the American College of Chest Physicians, to deliver the first annual Hendricks Memorial Address.

The Texas Dermatological Society will offer a series of papers on penicillin, hydrocortisone ointment, vulvar dermatoses, kissing bug bites, swimming pool granuloma, and Letterer-Siwe disease.

Dr. Herbert Pollack, New York, will be guest speaker for the Texas Diabetes Association, speaking on management of diabetic coma and dietary requirements of the diabetic patient. He also will participate in a panel discussion on the newly discovered diabetic.

Cardiography and new treatments, medical and surgical, of heart disorders will be discussed on the Texas Heart Association program, for which Dr. Myron Prinzmetal, Los Angeles, will be special guest.

The Texas Neuropsychiatric Association will present Dr. Tracy J. Putnam, Beverly Hills, Calif., in a paper on the treatment of epilepsy. The title of one of the presentations by Texas psychiatrists is "The Significance of Reciprocal Depressions in Marital Partners."

Eight papers by members of the armed forces and an address by Dr. William T. Green, Boston orthopedist, will be featured on the program of the Texas Orthopedic Association. Dr. Green, orthopedic surgeon-in-chief of the Children's and Peter Bent Brigham Hospitals and clinical professor of orthopedic surgery at Harvard Medical School, will spend several days in Houston touring the Texas Medical Center before going to San Antonio.

A symposium on the management of trauma involving disturbance of cerebral and cardiorespiratory function is scheduled for the Texas Railway and Traumatic Surgical Association meeting.

Dr. Digby Leigh, Vancouver, B. C., Canada, will discuss pediatric anesthesia for the Texas Society of Anesthesiologists.

A survey of 1,000 consecutive gastroscopic examinations and anorectal complications of antibiotics given orally are among the topics to be discussed for the Texas Society of Gastroenterologists and Proctologists.

The Texas Society of Pathologists will discuss basic concepts of response to trauma as well as other problems in pathology.

City and county health officers, in addition to learning more about poliomyelitis, leprosy, and infectious hepatitis, will consider the current problems of air pollution and community disasters. Dr. Gordon W. Grace, Los Angeles, will speak.

A luncheon for life insurance medical directors, a convention of physical therapists, and tentatively an organizational meeting of physicians interested in geriatrics will be held in San Antonio at the time of the Texas Medical Association annual session.

The oldsters among the doctors of Texas have been given a cordial invitation by the Fifty Year Club to attend its breakfast Tuesday morning, May 4. Members of the Texas Medical Association who have been in practice fifty years or more are eligible for membership in this organization, the main purpose of which is to encourage friendship and the sharing of experiences by doctors of medicine who have seen service from horse and buggy days to the present.

The Past Presidents Association has planned its annual luncheon for Monday, May 3.

Eight alumni associations (Texas Medical Branch, Southwestern, Baylor, Tulane, Arkansas, Tennessee, Vanderbilt, and Louisiana State) will hold dinners May 3, and seven medical fraternities are planning parties to precede the entertainment for the President of the Texas Medical Association, Tuesday, May 4. This latter event, although an official part of the annual session program, will be different from most such entertainments, featuring a buffet supper for those who want it and a floor show of Mexican songs and dances in the courtyard of La Villita.

As announced previously, committee meetings will begin Saturday, May 1; the House of Delegates will convene Sunday, May 2; specialty societies will meet Sunday and Monday, May 2 and 3; opening exercises and memorial services of the Texas Medical Association will be held Monday, May 3; and the scientific program of the Association will be held Tuesday and Wednesday, May 4 and 5. The Woman's Auxiliary will meet concurrently. Hotel reservations should be made directly with the hotel of choice in San Antonio.

COUNTY SOCIETIES

Baylor-Knox-Haskell Counties Society

November 10, 1953

The Baylor-Knox-Haskell Counties Medical Society participated in the telephone postgraduate broadcast sponsored by the Texas Medical Association November 10. The group met in the office of Robert L. Newsom, Munday, to hear the discussion on antibiotics.

Brazoria County Society

December 3, 1953

(Reported by Carlos E. Fuste, Jr., Secretary)

Brazoria County Medical Society met December 3 in Freeport for dinner and a business session at which they elected the following officers for 1954: William D. Nicholson, Freeport, president; M. Warren Hardwick, Angleton, vice-president; Carlos E. Fuste, Jr., Alvin, secretary; John S. Caldwell, Jr., Velasco, treasurer; and Joe S. Montgomery, Angleton, retiring president, member of the board of censors.

The society voted to sponsor locally the essay contest of the Association of American Physicians and Surgeons.

January 7, 1954

(Reported by Carlos E. Fuste, Jr., Secretary)

At the January 7 meeting of the Brazoria County Medical Society in Freeport, the following committee chairmen were announced by the president, William D. Nicholson, Freeport: M. Warren Hardwick, Angleton, program; Carlos E. Fuste, Jr., Alvin, medical jurisprudence and public relations; A. O. McCary, Freeport, tuberculosis; John C. O'Leary, Lake Jackson, medical advisory on poliomyelitis; R. M. McCary, Freeport, advisory to state public health and welfare; Ralph E. Gray, Lake Jackson, procurement and assignment; John S. Caldwell, Jr., Velasco, civil defense; and Robert H. Kirkpatrick, Freeport, blood banks.

Cass-Marion Counties Society

November 18, 1953

The Cass-Marion Counties Medical Society met with its woman's auxiliary November 18 at Linden for dinner followed by separate business sessions. Society members heard a discussion of the kidneys by Robert Womack, Shreveport.

Cherokee County Society

November 24, 1953

The annual Thanksgiving dinner meeting of the Cherokee County Medical Society and its woman's auxiliary was held at the Rusk State Hospital on November 24. The dinner and all-patient program were under the direction of the hospital staff. C. L. Jackson, hospital superintendent, acted as toastmaster.

Cooke County Society

November 16, 1953

Recent Problems of Anesthesia—Earl Weir, Dallas.

Following dinner with the local woman's auxiliary, the Cooke County Medical Society convened for a business and scientific session November 16 at Gainesville. Dr. Weir, chief anesthesiologist at Baylor Hospital, discussed the recent problems of anesthesia that have resulted from the development of new drugs.

Dallam-Hartley-Sherman-Moore Counties Society

November 12, 1953

The Dallam-Hartley-Sherman-Moore Counties Medical Society met November 12 in Dalhart. M. E. Jacobson, Amarillo, was guest speaker.

Dallas County Society

December 8, 1953

(Reported by W. W. Fowler, Secretary)

Radical Treatment for Carcinoma of Prostate—Harry M. Spence, Dallas.

Hormonal and Isotope Treatment for Carcinoma of Prostate—Joseph D. Mitchell, Jr., Dallas.

Role of Hyaluronidase in Recurring Renal Calculi—John M. Pace, Dallas.

The Dallas County Medical Society met December 8 in Dallas, elected new officers, and heard Jay Waddell, chairman of the society's medical jurisprudence committee, ask for support of the Bricker Amendment to the United States Constitution.

After the reading of a memorial for those society members who had died during 1953, the following new officers were presented: R. A. Trumbull, president-elect; Harry M. Spence, vice-president; W. W. Fowler, secretary emeritus; Glenn D. Carlson, secretary; Porter K. Mason, treasurer; Earl Loftis, censor; Dale Austin and Haynes Harvill, members of the board of directors; Barton E. Park, Fred W. Horn, Dr. Trumbull, and Edward White, delegates; T. M. Kirksey, L. S. Thompson, Frank H. Kidd, Jr., and Arnott DeLange, alternates; and J. O. S. Holt, Marvin Knight, Robert L. Moore, and Robert J. Rowe, members of the nominating committee.

The scientific program was presented as outlined above.

Dr. Park, chairman of the board of directors, presented a recommendation from the public health committee, which was adopted. The recommendation was that the expense of operating well-child conferences in Dallas be assumed

by the local city and county governments under direction of the city and county health departments, inasmuch as federal funds are no longer available, and that the following regulations apply: (1) Physicians shall be authorized to accept payment from the Health Department for their services at the conference sessions. (2) The conferences shall be limited to 15 patients per physician per session. (3) Only well children under 6 years of age shall be accepted.

Eastland-Callahan-Stephens-Shackelford-Throckmorton Counties Society

November 17, 1953

Management of Obstructive Prostate—E. O. Bradfield, Temple.
Surgical Management of Duodenal Ulcer—R. R. White, Temple.

Members of the Eastland-Callahan-Stephens-Shackelford-Throckmorton Counties Medical Society heard the above talks when the society held its regular meeting November 17 in Eastland.

Hale-Floyd-Briscoe-Swisher Counties Society

January 12, 1954

(Reported by John C. Long, Jr., Secretary)

Medical Induction of Labor—Eugene McCarthy, Plainview.
Discussion—Russell K. Williams, Plainview.

The Hale-Floyd-Briscoe-Swisher Counties Medical Society held its first meeting of 1954 on January 12 in Plainview with Roy R. Roberts, Plainview, president, presiding over the business session which preceded the above scientific program.

Hardeman-Cottle-Foard-Motley Counties Society

December 9, 1953

(Reported by J. M. Taylor, Secretary)

Psychiatric Evaluation of Menopause—Henry Snyderman, Plainview.

After a dinner at the home of A. C. Traweek, Jr., of Matador, on December 9, the Hardeman-Cottle-Foard-Motley Counties Medical Society heard the above scientific paper and elected new officers. They are J. M. George, Quanah, president; C. C. Pate, Paducah, vice-president; J. M. Taylor, Quanah, secretary-treasurer; A. C. Traweek, Sr., Matador, delegate; and R. R. McDaniel, Quanah, alternate. J. F. Hughes, Spur, and P. L. Salkeld and E. A. Vestal, Quanah, were elected to the board of censors.

Harris County Society

November 10, 1953

Charles D. Reece assumed the presidency of the Harris County Medical Society at the group's November 10 meeting in Houston. Louis E. Williford became president-elect; S. G. Ohlhausen, vice-president; William M. Wallis, secretary; and Mavis P. Kelsey, treasurer. Also named were the following board and committee members: James Greenwood, executive; Eugene L. Slataper, censors; Lawrence W. Johnson, Jackson A. Smith, and Mylie E. Durham, Jr., medical jurisprudence and public relations; and Moise D. Levy, Jr., Ralph Liles, and William D. Seybold, adjudication and medical testimony. John K. Glen, C. Forrest Jorns, Denton Kerr, Herbert L. Alexander, J. Stanley Oliver, and Bill Robins are delegates; and William M. Sherrill, Hiram P. Arnold, Hampton C. Robinson, Edward S. Crocker, Wendell H. Hamrick, and John T. Armstrong, alternates.

Hill County Society

November 10, 1953

Emergency Treatment of Chest—G. V. Brindley, Jr., Temple.

The Hill County Medical Society met November 10 in Hillsboro to hear the above scientific paper. The group voted to hold a joint meeting with the local cancer group on December 14 in Hillsboro.

Lubbock-Crosby Counties Society

December 1, 1953

(Reported by Clyde F. Elkins, Acting Secretary)

Following a dinner given by J. A. Chatman at the Chatman Hospital in Lubbock on December 1, an election of officers was held by the Lubbock-Crosby Counties Medical Society. Frank C. Goodwin became president; Sam C. Arnett, vice-president; Richard K. O'Loughlin, secretary; Clyde F. Elkins, treasurer; Ewell L. Hunt, censor for three years; and William H. Gordon, delegate for two years. James T. Hall has two more years to serve as censor; E. E. McClure, one more year. Albert G. Barsh remains a delegate, and Allen T. Stewart and Arthur Jenkins remain alternates. All officers are from Lubbock.

The revised constitution, which had been mailed previously to each member, was unanimously accepted. E. A. Rowley, Amarillo, discussed raising money for the American Medical Education Foundation; Frank Malone, Lubbock, spoke about the Bricker Amendment.

January 5, 1954

(Reported by Richard K. O'Loughlin, Secretary)

Painful Low Back—R. Q. Lewis, Lubbock.
Discussion—Charles Ratcliff, Elbert Loveless, William Cashion, Lubbock.

Before hearing the above discussion on January 5 in Lubbock, the Lubbock-Crosby Counties Medical Society held a business session, presided over by Frank C. Goodwin, new president. Allen T. Stewart explained the procedure for obtaining honorary membership in the Texas Medical Association; O. B. Hull discussed the television programs planned by the society; Roy Riddel announced plans for a banquet and social hour to be held January 12; and Frank Malone made an announcement about the state conference for county society presidents and secretaries scheduled for January 23 at the Association's headquarters building in Austin.

Nueces County Society

December 8, 1953

(Reported by William E. Morris, Secretary)

Hugh A. Kennedy assumed the presidency of the Nueces County Medical Society and conducted an election of officers at the December 8 meeting in Corpus Christi. New officers are William E. Morris, president-elect; C. B. Slabaugh, vice-president; G. S. Ahern, secretary; A. L. Lane, treasurer; L. C. Arnim, F. W. Hartwick, and R. G. Spann, censors; C. P. Yeager and J. F. Pilcher, delegates; H. E. Griffin and L. M. Garrett, alternates; and W. E. Riley and Joseph Alsop, cancer clinic directors.

The society voted to raise the salary of the executive secretary and to have the dues remain $110 for 1954. The diabetic committee reported that 5,723 tests were taken during Diabetic Week, with 16 positive cases reported. M. C. Kendrick gave a resumé of the society's activities for the past year in his president's report.

January 12, 1954

(Reported by Gerald S. Ahern, Secretary)

Pheochromocytoma, Its Diagnosis and Management—Nicholas C. Hightower, Temple.

The Nueces County Medical Society met January 12 in Corpus Christi and heard the above scientific discussion. Ralph Cameron, O. S. Carlson, Stanley Dolch, Jr., and A. F. Kiel were elected to membership. The following medical officers from the Corpus Christi Naval Air Station attended the meeting: D. O. Coffman, B. R. Malpass, William Russell, and A. B. Stephens, Jr.

A resolution from the United Fund, Inc., praising the society for its support of the drive and its contribution to the health and welfare of the community, was read.

Tarrant County Society

November 17, 1953

(Reported by S. W. Wilson, Secretary)

Investments for Professional Man—Paul Hastings, Ph. D.; Mr. F. L. Hargis; and Mr. Roy Stevenson, Fort Worth.

The Tarrant County Medical Society and the Fort Worth District Dental Society held a joint dinner meeting November 17 in Fort Worth. Seventy-eight society members, forty-two dentists, and three guests heard the above panel discussion following the dinner. A resolution presented by T. L. Lauderdale expressing the society's opposition to the Ives Bill (United States S. 1153), which "would actually mean federal subsidization of the voluntary plans, medical education and health facilities," and would "make them a vehicle for the complete socialization of medical care," was adopted.

December 1, 1953

(Reported by S. W. Wilson, Secretary)

New officers were elected December 1 in Fort Worth by the Tarrant County Medical Society. They follow: C. S. E. Touzel, president-elect; J. Franklin Campbell, vice-president; S. W. Wilson, secretary-treasurer; John Wiggins, censor; William Crawford, member of the board of trustees; Mal Rumph, James D. Murphy, and H. T. Jackson, delegates; and Robert C. Stow, J. H. Steger, Drue O. D. Ware, and Fred B. Aurin, alternates.

A motion by Dr. Murphy making the insurance committee permanent and stating its function was passed.

December 15, 1953

(Reported by S. W. Wilson, Secretary, and Joseph F. McVeigh, Chairman, Public Relations Committee)

Gold-Headed Cane: Modern Symbol of Aesculapian Staff—William J. Kerr, near Eureka, Calif.

Two hundred and forty-five members and their wives attended the annual "Gold-Headed Cane" dinner sponsored by the Tarrant County Medical Society December 15 in Fort Worth and saw R. J. White receive the award from May Owen, the 1952 winner.

Dr. Kerr, who is a retired professor of medicine at the University of California and editor of the new edition of the "Gold-Headed Cane," gave the above address and displayed several canes from his collection.

January 5, 1954

(Reported by S. W. Wilson, Secretary)

The Tarrant County Medical Society held its inaugural banquet January 5 in Fort Worth with approximately 300 members and guests in attendance, including officials of the Texas Medical Association and medical officers of the United States Public Health Service Hospital and of Carswell Air Force Base, Fort Worth.

R. J. White was master of ceremonies, and Bishop Thomas K. Gorman of the Fort Worth-Dallas Catholic Diocese was guest speaker. William P. Higgins, Jr., incoming president, was presented with the gavel by William Crawford, outgoing president.

Taylor-Jones Counties Society

November 11, 1953

Local and State Tuberculosis Situation—Travis Smith, Abilene.
Childhood Tuberculosis, Testing and BCG—Dale Johnson, Abilene.
Medical Treatment of Tuberculosis—Frank Carman, Dallas.
Indications for Surgical Treatment of Tuberculosis—Walter Park, San Antonio.

A scientific and business session was held by the Taylor-Jones Counties Medical Society November 11 in Abilene. New officers were elected and the program as outlined above was presented. J. C. Duff, who is mayor of Anson, became president; C. A. McFadden, vice-president; Marshall Turnbull, secretary; Travis Smith, censor; and R. W. Varner, delegate. All officers except Dr. Duff are from Abilene.

Tom Green-Eight County Society

November 2, 1953

Diagnosis of Types of Pneumonia—John Chapman, Dallas.

Dr. Chapman, who is assistant dean of graduate and postgraduate education at Southwestern Medical School of the University of Texas, addressed the Tom Green-Eight County Medical Society at its November 2 meeting in San Angelo and used slides of roentgenograms to illustrate the variety of pneumonias.

R. M. Arledge became president for 1954; T. G. Coleman, president-elect; K. B. Round, vice-president; and Joe L. Cornelison, secretary-treasurer. All officers are from San Angelo.

January 4, 1954

(Reported by Joe L. Cornelison, Secretary)

A program by the Parkland Tumor Clinic panel of Dallas comprised the January 4 meeting of the Tom Green-Eight County Medical Society in San Angelo.

Wharton-Jackson-Matagorda-Fort Bend Counties Society

January, 1954

(Reported by S. E. Thompson, Secretary)

Problems of Industrial Insurance—Mr. Dan W. Jones, Houston.

At the January meeting of the Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society in Richmond, Mr. Jones spoke on the above subject from an insurance company's viewpoint. He is claims manager for Travelers Insurance Company.

Forty-three society and auxiliary members attended.

Wichita County Society

November 10, 1953

Diagnosis, Prognosis, and Treatment of Intracranial Tumors—Albert P. D'Errico, Dallas.

The Wichita County Medical Society heard the above scientific discussion at its November 10 meeting in Wichita Falls. Dr. D'Errico is professor of neurosurgery at Southwestern Medical School.

James T. Lee has been named president of the society; Roger W. Manar, president-elect and vice-president; David Allen, secretary-treasurer; J. D. Hall, delegate; Aubrey Cox, alternate; and L. N. Simmons, censor. All are of Wichita Falls.

DISTRICT SOCIETIES

Twelfth District Society

January 12, 1954

(Reported by Walter B. King, Jr., Secretary)

Extrophy of Bladder—James Hejtmancik, Waco.
Pulmonary Embolus: Its Prevention and Treatment—R. D. Holt, Jr., Meridian.
Survey of Waco Tornado Casualties—R. K. Gassler, Waco.
Can Private Practice Survive?—F. J. L. Blasingame, Wharton.
Emergency Treatment of Fractures of Mandible and Maxilla—Joe Rutherford, D.D.S., Waco.
Value of Blood Volume Determinations in Gastrointestinal Disease—Nathan Cedars, Stephenville.
Vertigo: Etiology, Type, and Treatment—Vance Terrell, Stephenville.

The program outlined above was presented when the Twelfth District Medical Society met January 12 in Waco. Dr. Blasingame, President-Elect of the Texas Medical Asso-

ciation and member of the Board of Trustees of the American Medical Association, was luncheon speaker. Approximately eighty-six doctors and wives attended.

Neil Buie, Marlin, became president; Van D. Goodall, Clifton, was elected president-elect and Paul H. Mitchell, Corsicana, secretary-treasurer.

Thirteenth District Society

March 24, 1954

(Reported by Robert D. Moreton, Secretary)

When the Thirteenth District Medical Society meets at the Fort Worth Academy of Medicine building March 24, special emphasis will be laid on acquainting members with the items of importance which are to come before the House of Delegates of the Texas Medical Association six weeks later. A luncheon panel made up primarily of officials of the Association will be present to explain the reports, resolutions, and recommendations which it is anticipated will create the most interest at the annual session and the adoption of which would have the most far-reaching effects. Those attending the district meeting can go home better prepared to discuss with their colleagues the pending business of the Association and the stand which delegates from the county societies should take.

Physicians from areas adjacent to the Thirteenth District are invited to attend the one day meeting in Fort Worth, which will include panel discussions on diseases of muscles and lesions of the colon. The Woman's Auxiliary is planning entertainment for visiting ladies.

No registration fee will be charged at the district meeting, registration for which will open at 9 a. m., but luncheon tickets will be on sale.

AUXILIARY SECTION

COMMUNITY SERVICE

"Human life," it has been said, "consists in mutual service." The Woman's Auxiliary to the Texas Medical Association pays homage to this point of view in recommending a program of activity which calls for individual as well as group cooperation with other community agencies working for the betterment of health. By contributing their share of time, energy, and knowledge to other organizations which have some of the same ideals as the medical auxiliary, Mrs. E. W. Coyle of San Antonio, President of the State Auxiliary, points out, physicians' wives can achieve greater results than if they worked alone and at the same time can create among those with whom they labor a greater understanding and sympathy for the medical profession and its objectives.

The Constitution of the Woman's Auxiliary to the Texas Medical Association states that the primary object of the organization shall be "to extend the aims of the medical profession, through the wives of the doctors, to other organizations which look to the advancement of health and education." Furnishing a speaker on first aid for home accidents for a local parent-teacher association, rolling bandages for the local cancer society, raising funds to cover the health and character building agencies within the United Fund or Community Chest, taking gifts to an old people's home—all of these and many more similar projects are included in the programs of county medical auxiliaries. They help do a job that needs doing; they also help to develop an awareness of the medical profession and a feeling that it is contributing in a positive way to the welfare of the community.

Civil defense, mental health, and nurse recruitment committees of the medical auxiliary almost automatically find themselves working in cooperation with other groups concerned with the same areas, Mrs. Coyle says. Essay contest, legislative, American Medical Education Foundation, physical examinations, and Today's Health committees have an opportunity to take medicine's message to others, for none of the topics with which they deal is for doctors and doctors' wives alone. Some of the other committees which customarily function in the medical auxiliary likewise are challenged to interpret the point of view of the medical profession while serving the community, and the program and public relations committees are concerned largely with this interplay of community and auxiliary member.

In these days when both the motives and the methods of the medical profession seem to be under fire, perhaps it is right for the Woman's Auxiliary to the Texas Medical Association to think first of the desirable public relations which will be built through cooperation in the community. Nevertheless, Mrs. Coyle reminds, real service for its own sake cannot help but foster the mutual understanding and respect upon which good public relations must be established.

Officers of the Woman's Auxiliary to the Texas Medical Association: President, Mrs. E. W. Coyle, San Antonio; President-Elect, Mrs. Mark H. Latimer, Houston; First Vice-President (Organization), Mrs. John D. Gleckler, Denison; Second Vice-President (Physical Examinations), Mrs. Cecil O. Patterson, Dallas; Third Vice-President (Today's Health), Mrs. Ralph B. Payne, Amarillo; Fourth Vice-President (Program), Mrs. Guy Knolle, Houston; Recording Secretary, Mrs. Paul Brindley, Galveston; Corresponding Secretary, Mrs. Charles L. McGehee, San Antonio; Treasurer, Mrs. Oscar M. Marchman, Jr., Dallas; Publicity Secretary, Mrs. Allen H. Neighbors, Jr., Austin; Parliamentarian, Mrs. H. S. Renshaw, Fort Worth.

COUNTY AUXILIARIES

More than 300 dolls were collected for the Christmas Clearing Bureau's gift baskets by the *Bexar County Auxiliary*. With Mrs. John Parsons as coordinator, publicity was sent to various clubs belonging to the City Federation, and many nursery schools also cooperated. The group honored the doctors December 12 with a dinner dance in San Antonio; Mrs. F. G. Lahourcade was social chairman for the affair.

Sixty couples attended the annual Christmas open house of the *Nueces County Auxiliary* December 6 at the home of the C. D. Dixons, Corpus Christi. Mrs. C. D. Stewart, chairman; Mrs. Sterling Martin, co-chairman; Mrs. Sam Powell, president; and Mrs. Dixon were hostesses.

"Here I Stand," a book by Roland Bainston, was reviewed by Mrs. J. M. Spurlock in observance of Bible Day by the *Hunt-Rockwall-Rains Counties Auxiliary* November 3 in the home of Dr. and Mrs. Grady Bruce, Greenville. Members answered roll call with quotations from the Bible on health. The speaker was presented by Mrs. S. D. Whitten, and Mrs. C. D. Savage, president, presided over the business session.

"Books" was the topic discussed by Mrs. E. W. Grumbles, Atlanta, at the November 18 meeting of the *Cass-Marion Counties Auxiliary* at Linden. The meeting followed a dinner with the society. On January 13 following dinner with the doctors, the auxiliary met at the home of Dr. and Mrs.

T. K. Nichols, Atlanta, to complete final reports for the year's work. A social hour ended the evening.

The annual Thanksgiving dinner of the *Cherokee County Auxiliary* and society held at the Rusk State Hospital November 24 was followed by an all-patient program. Dr. C. L. Jackson, superintendent, acted as toastmaster.

"Personality Development in Children" was discussed by Dr. George Schlenker at the January 11 meeting of the *El Paso County Auxiliary*. Mrs. Clement C. Boehler, mental health chairman, was in charge of the program. The Bricker Amendment was discussed by Mrs. Louis Breck, and copies of "You Can Lose Your Freedom Overnight by Treaty—Protect It by Bricker Amendment," prepared by the auxiliary, were distributed. Poll taxes were sold at the meeting, which was preceded by a luncheon, the chairmen for which were Mrs. Morton Leonard and Mrs. Jack Bernard. The auxiliary honored Dr. and Mrs. George Turner at a dinner dance November 28 at the Hilton Hotel in El Paso as its Doctor's Day celebration; Mrs. Frank Schuster was chairman. Dr. Turner is President of the Texas Medical Association, and Mrs. Turner is President-Elect of the American Medical Association's Woman's Auxiliary.

The *Navarro County Auxiliary* observed Doctor's Day January 8 with a dinner in Corsicana. Dr. Robert Kimbro, Cleburne, chairman of the Board of Trustees of the Texas Medical Association, was speaker. Throughout the day the doctors of Corsicana wore red carnation boutonnieres presented to them by their wives. Mrs. Paul H. Mitchell and Mrs. W. K. Logsdon were hostesses for the dinner. Mrs. Kimbro also attended.

"The Doctor's Wife in Fashion" was the theme of a luncheon-style show given November 4 in Dallas by the *Dallas County Auxiliary*. Mrs. Everett C. Fox was chairman of the program.

Jimmie Angel, business manager of the Kerrville State Home, told the *Kerr-Kendall-Gillespie-Bandera Counties Auxiliary* about "Care of the Aged" at the group's meeting November 6 in Kerrville.

Mrs. Edward W. Coyle, San Antonio, State President, was honor guest at several county auxiliary functions throughout the state recently. The *Tom Green-Eight County Auxiliary* honored her with a luncheon at the home of Dr. and Mrs. M. D. Knight, San Angelo, in the early part of November, as did the *Nolan-Fisher-Mitchell Counties Auxiliary* at Sweetwater, Mrs. T. D. Young presiding. Mrs. Coyle also was guest at a dinner meeting November 10 in Abilene of the *Taylor-Jones Counties Auxiliary*, at which meeting Mrs. T. B. Bass gave the invocation; Mrs. Sol Estes, president, recognized local members who were state officers; and the silver cup won by the group at the 1953 annual session for acquiring the greatest number of new members was displayed. Mrs. Coyle discussed the phases of State Auxiliary work with stress on the field of mental health.

DEATHS

W. E. MARTIN

Dr. Walter Evans Martin, Dallas and Seagoville, Texas, died October 15, 1953, in a Dallas hospital after a stroke.

DR. WALTER E. MARTIN

Born in Deport, August 15, 1897, Dr. Martin attended East Texas State Teachers College, Commerce, and the University of Texas, Austin, and was graduated from Wesley College, Greenville. He taught school in Lamar County, later becoming superintendent of Lamar County public schools, before beginning his medical work. He was graduated from Baylor University College of Medicine, Dallas, in 1931 and practiced medicine in Paris briefly before locating in 1932 in Dallas. Dr. Martin organized a group practice at his offices in Dallas and founded the East Dallas Hospital. Two years ago, he moved to his ranch in Seagoville.

Dr. Martin was a current member of the American Medical Association and Texas Medical Association through Dallas County Medical Society. He was a member and past president of the Dallas County Chapter of the American Academy of General Practice and belonged to the Dallas Southern Clinical Society. For many years, he was a steward in the Methodist Church. He was a Mason and former president of the J. L. Long Dad's Club.

Dr. Martin is survived by his wife; two sons, Oscar W. Martin and Wayne E. Martin, both of Seagoville; a daughter, Dr. Robbie Jo Shires, Dallas; a brother, Lee H. Martin, Tahoka; and six sisters, Mrs. Jessie Reece and Mrs. Belle Griffin, both of Dallas; Mrs. Bessie Barham and Mrs. Alice Westbrook, both of Deport; Mrs. Dora Watkins, Fort Worth; and Mrs. Joe Merrell, Kemp.

L. M. REAVES

Dr. Lovett Martin Reaves, Dallas, Texas, died at a local hospital, January 2, 1954, of myeloma.

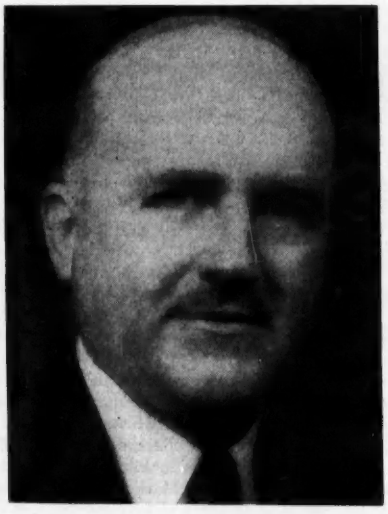
The son of Mr. and Mrs. B. A. Reaves, Dr. Reaves was born December 17, 1904, in Warren, Ark. He received his preliminary education in Warren public schools and attended Henderson-Brown College, Arkadelphia, Ark. After being graduated in 1929 from the University of Arkansas School of Medicine, Little Rock, he served an internship at St. Paul's Hospital, Dallas. For twenty-three years, he had maintained a private practice of medicine in Dallas.

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

Dr. Reaves belonged to the American and Texas Medical Associations through Dallas County Medical Society and was a member of the Texas Academy of General Practice, Dallas Southern Clinical Society, and Phi Chi medical fraternity. He was a thirty-second degree Mason and a member of the Shrine, and served on the board of stewards of the Highland Park Methodist Church.

For three years during World War II, he was a captain and later a lieutenant colonel in the Medical Corps, serving in the Asiatic Pacific theater for fifteen months in 1944 and 1945.

His wife, the former Miss Allan Wells, whom he married July 15, 1934, survives, as do two daughters, Carol Reaves and Jane Reaves, Dallas; his mother, Mrs. B. A. Reaves, Warren, Ark.; two sisters, Miss Mary C. Reaves, El Dorado, Ark., and Mrs. E. F. Carter, Shreveport, La.; four brothers, Lee Reaves and Hugh Reaves, Warren, Ark.; Glenn Reaves, Houston; and Noel Reaves, Oklahoma City.



DR. L.. M. REAVES

R. D. MOORE, JR.

Dr. Rufus Dillard Moore, Jr., died of myocardial infarction November 30, 1953, at his home in Houston, Texas.

The son of Dr. Rufus Dillard and Emily Jessie Moore, Dr. Moore was born in Omaha, Texas, May 25, 1910. He attended Omaha public schools and Lon Morris College, Jacksonville. He received a bachelor of arts degree from Southern Methodist University, Dallas, and bachelor of science and master of arts degrees from East Texas State Teachers College, Commerce. After receiving his medical degree in 1935 from the University of Arkansas School of Medicine, Little Rock, he served an internship at Little Rock City Hospital.

For four years Dr. Moore practiced at Mount Pleasant. He then served from 1941 to 1946 with the Army Medical Corps, completing his tour of duty in executive positions in Chicago and San Francisco and being discharged as a lieutenant colonel. More recently he had been a colonel in the Medical Reserve Corps. In 1946 Dr. Moore returned to Omaha and practiced there for two and a half years before moving to Houston.

A member of the American and Texas Medical Associations through Harris County Medical Society, Dr. Moore was formerly a member of Titus and Morris Counties Medical Societies. He belonged to the Southern Medical Association, American Geriatrics Society, American Academy of General Practice, American Association of Military Surgeons, and Reserve Officers Association. He also was a Scottish Rite and York Rite Mason, a member of the Shrine, and a member of the Eastern Star. He held membership in the Variety Club and belonged to the Methodist Church.

DR. RUFUS D. MOORE, JR.

His survivors include his wife, the former Miss Sally Reba Newman, whom he married in Forrest City, Ark., December 31, 1936; his mother, Mrs. R. D. Moore, Sr., Omaha; and a brother, J. Marion Moore, Dallas.

J. T. LAWSON

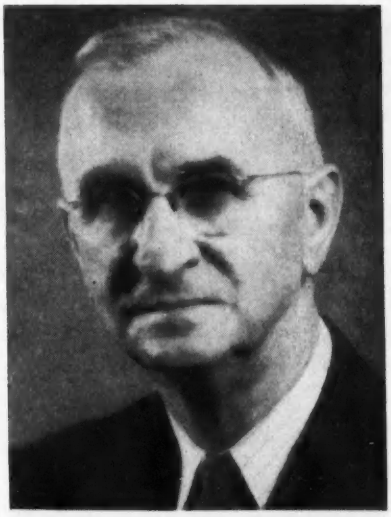
Dr. John Thomas Lawson died December 12, 1953, at his home in Bowie, Texas, after suffering a heart attack.

Dr. Lawson was born November 23, 1876, at Talladega, Ala., the son of Thomas E. and Julia A. Lawson. In 1887, he came to Cleburne with his parents. After being graduated in 1899 from the old Memphis Hospital Medical College, Memphis, Tenn., which was consolidated with the University of Tennessee College of Medicine in 1913, Dr. Lawson located at Files, where he practiced for six years. He then moved to Bowie and did general practice and surgery before taking special work and entering the field of diseases of the eye, ear, nose, and throat. He had taken many postgraduate courses in medicine and surgery at various medical centers in Chicago and St. Louis.

Dr. Lawson was a member of the American Medical Association and Texas Medical Association through Clay-Montague-Wise Counties Medical Society. He served as president of Hill County Medical Society before moving to Bowie, and had served as both president and secretary of Montague County Medical Society before assisting in organizing and becoming first president of the Clay-Montague-Wise Counties society. In 1915, he was president of the Thirteenth District Medical Society. He belonged to the Dallas Academy of Ophthalmology and Otolaryngology. President of the Texas State Board of Medical Examiners

for four years and member of the Board for twelve years, Dr. Lawson was city health officer at Bowie and local surgeon for the Fort Worth and Denver Railroad Company and the Rock Island Lines. He had been a member of the Bowie Clinic and on the staff of the Bowie Clinic Hospital since they were organized. He was a member of the Fifty Year Club.

Dr. Lawson served in the Medical Corps of the United States Army during World War I. A one time director of Texas Agricultural and Mechanical College, he was director and twice president of the Bowie Chamber of Commerce. He served as manager of the Bowie Public Welfare Association during the depression years, was past commander of the local American Legion Post, vice-president of the Security National Bank of Bowie, and past president of the Bowie Rotary Club. Among his other interests were real estate, land, cattle, and oil.



DR. JOHN T. LAWSON

Recently, Dr. Lawson had been honored by the University of Tennessee College of Medicine with the presentation of a Golden "T" award for his services to his school and to his community.

Dr. Lawson married the former Miss Edna McKey at Files in 1900. Their son, Dr. J. Mack Lawson, a Fort Worth surgeon, died in 1951. Surviving Dr. Lawson are his wife; a daughter, Mrs. Lucille Head of Ely, Nev.; five grandchildren; and three great-grandchildren.

A. L. RIDINGS

Dr. Alfred Lafayette Ridings, formerly of Sherman, Texas, died December 16, 1953, in a Washington, D. C., hospital of coronary thrombosis.

Dr. Ridings was born in Ivanhoe, March 7, 1879, the son of Perry Pinckney and Mildred (Davis) Ridings. He received his academic education at Ivanhoe and Bonham public schools, and was graduated an honor student from the University of Louisville School of Medicine, Louisville, Ky., in 1910. He practiced in Dorchester before moving in 1916 to Sherman, where he lived until his retirement in 1949 after suffering a stroke. Dr. Ridings had been living with his daughter in Washington since that time.

A member for many years of the Texas Medical Association, he was elected to honorary membership in 1950. He served as Vice-President of the Association in 1934 and as secretary of the Section on Surgery of the Association's 1937 annual session. Dr. Ridings was a former president of the Grayson County Medical Society and the Fourteenth District Medical Society. He held membership in the Texas Railway and Traumatic Surgical Association and was a fellow of the American College of Surgeons. At the time of his retirement he was on the staff of the Wilson N. Jones Hospital and a member of the Stout (now Medical Arts)

DR. ALFRED L. RIDINGS

Clinic. He belonged to the Sherman Kiwanis Club, Masonic Lodge, and the Baptist Church.

Dr. Ridings was a captain in the United States Army Medical Corps in World War I and served as a member of the medical advisory board to the Selective Service system in World War II. He was awarded a presidential citation and a Selective Service medal in 1945 for his work during World War II.

His wife, the former Miss Grace Dupree, whom he married in Bonham in March, 1900, was a Texas poet and an official in several state and national literary and patriotic groups. She died in 1941.

Surviving Dr. Ridings are his daughter, Mrs. Hope Ridings Miller, magazine writer, of Washington, D. C., and a nephew, Dr. Ridings E. Lee of Dallas.

W. L. ROBINSON

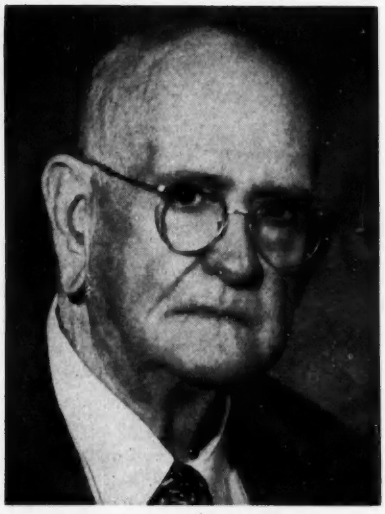
Dr. William Lee Robinson of Texarkana, Texas, died December 22, 1953, of coronary occlusion.

Born the son of William Wirt Bonner and Mary Susan (Irvine) Robinson, August 3, 1876, in Eureka, Navarro County, Texas, Dr. Robinson received his academic education in Eureka, Zions Rest, and Corsicana. He attended Texas Agricultural and Mechanical College, College Station, where he studied engineering, and the University of Texas College of Pharmacy, Galveston. He received his medical degree from the University of Texas School of Medicine, Galveston, in 1903. In 1904, Dr. Robinson was house physician at St. Joseph's Infirmary in Houston. After serving an internship at John Sealy Hospital, Galveston, he practiced in Montgomery, Navarro, and Hill Counties be-

fore moving in 1920 to Dallas. He served for twenty years as visiting physician at Parkland Hospital, Dallas. From 1941 to 1950, he was a physician for Austin State School, Austin. He then returned to Dallas and became superintendent of the County Convalescent Home. Two years later he was resident physician at the Beverly Hills Sanitarium, a post he held until December, 1952, when he moved to Texarkana and served as plant physician for the Lone Star ordnance plant there.

Dr. Robinson belonged to the Texas Medical Association through Dallas County Medical Society. He previously had belonged to Navarro, Hill, and Travis Counties societies. He also was a member of the Southern Medical Association.

Dr. Robinson was in the Spanish-American War, served as a captain with Gen. John J. Pershing in his expedition



DR. WILLIAM LEE ROBINSON

to Mexico in 1915, and was a major in the infantry during World War I.

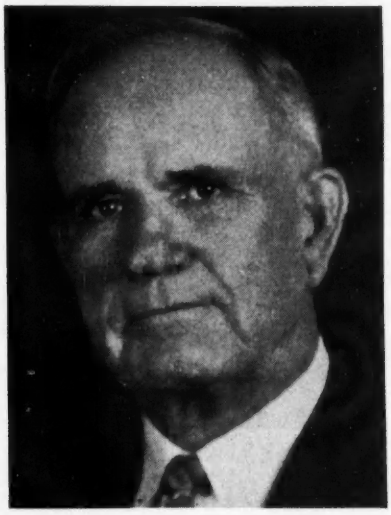
A great-nephew of Confederate Gen. Robert E. Lee, Dr. Robinson was an honor guest when President Franklin D. Roosevelt unveiled the statue of the general in Dallas' Lee Park in the 1930's. He was commander of the Sons of Confederate Veterans. He belonged to the Order of the Green Snake (an organization of Spanish-American War veterans), the American Legion, Veterans of Foreign Wars, and High Noon Club, and served as vice-president for the Sons of the Texas Revolution. He was a thirty-second degree Mason and a member of the Presbyterian Church.

Dr. Robinson is survived by his wife, the former Miss Charlotte Mayfield, Dallas; one son, William Lee Robinson, Jr., Austin; three daughters, Mrs. Roy Nunnally, Hawaii; Mrs. Mayme Sue Murray, Dallas; and Mrs. John B. Matney, San Angelo; two sisters, Mrs. Justin Harrison, Dallas, and Mrs. M. T. Horne, Galveston; two brothers, E. E. Robinson, Dallas, and Dr. H. Reid Robinson, Galveston; four grandchildren; and one great-grandchild.

M. A. FORBES

Dr. Marrell Allen Forbes, San Antonio, Texas, died in that city on January 6, 1954, of coronary occlusion.

A native of Whitehouse, Williamson County, Dr. Forbes was born February 28, 1873, the son of John Alexander and Virginia (Barfield) Forbes. After studying at public schools in Williamson, Burnet, and Tom Green Counties and at the University of Texas Medical Branch, Galveston, Dr. Forbes was graduated in 1901 from Tulane University of Louisiana School of Medicine, New Orleans. He practiced in Beyersville, Kenedy, and Corpus Christi before going to New York for a year as resident at Bellevue Pediatric Clinic. In 1910, he moved to San Antonio, where he spent the remainder of his professional career, and was local surgeon for the San Antonio and Aransas Pass Railway for several years. He was instrumental in the establishment of the first charity children's hospital in San Antonio before the Robert B. Green Hospital was opened in 1916. A member of the State Militia, Dr. Forbes was drillmaster at Camp Mabry, Austin, in 1890-1891, and was a civilian medical examiner in San Antonio for the United States Army during World War I. In honor of the golden anniversary of his graduation, Dr. Forbes along with twenty-eight classmates in 1951 received a "second medical degree" from Tulane and was a guest at a special luncheon in New Orleans.



DR. M. A. FORBES

An honorary member of the Texas Medical Association since 1951 and a member almost continuously since 1904, Dr. Forbes also belonged to the American Medical Association, the Bexar County Medical Society, and the Presbyterian Church. He was a Royal Arch Mason, a thirty-third degree Scottish Rite Mason, and a member of the Shrine. Dr. Forbes was twice master and a life member of the local Masonic Lodge and had served as district deputy grand master of Texas for the thirty-ninth Masonic district and both grand orator and grand visitor of the Grand Lodge of Texas. He was also a member of the board of directors of the Scottish Rite Dormitory at the University of Texas, Austin, from 1943 to 1949 and chairman of the executive committee of the Scottish Rite bodies in San Antonio from 1945 to 1949.

Survivors include his wife, the former Miss Vance Word, whom he married February 4, 1906, at Kenedy; a daughter, Miss Muriel Forbes, San Antonio; two sons, C. A. Forbes, Georgetown, and Dr. M. Allen Forbes, Jr., Austin; and four grandchildren.